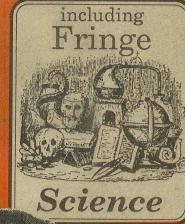
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ELECTRICAL

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BOOKS





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Official 1934 SHORT WAVE RADIO MANUAL edited by Hugo Gernsback & H W Secor new chapter by T. J. Lindsay

Build simple, high-performance old timeA shortwaver radios! You can. All of the secrets are here: the circuit diagrams, parts layout, coil specifications, construction details, operation hints, and much more.

Back in the 20's and 30's the only low-cost way of listening in on the newly discovered and fascinating shortwave radio frequencies was to build a set. Shortwave construction magazines flourished, even during the depression.

This is a compilation of construction articles from "Short Wave Craft" magazine. It's wall-to-wall how-to.

At the rear of the book are circuit diagrams, photographs, and design secrets of all shortwave receivers being manufactured in 1934 including some of the most famous: SW-58, the SW-5 Thrill Box", the deForest KR-1, the Hammy and "Comet Pro", and many more. You and that all the circuits use tubes

You find that all the circuits use tubes since tresistors hadn't yet been invented. And you also find that the original tubes listed an issually difficult to find today, using junk between arts, one of my wife's hair curlers and allighter clips. When I hooked it up to an antenna strung across the basement ceiling and attached a 9 volt battery, signals started popping in like crazy. In a couple of minutes I heard an urgent message from a ship's captain off Seattle asking for a navigator to help him through shallow water. Not bad, considering I live near Chicagol

These small regenerative receivers are extremely simple, but do they ever perform! I've built dozens of them, and they never fail to amaze me! Even master machinist, Dave Gingery has built these sets.

This is the nuts for the experimenter, the survivalist who is concerned about basic communication, shortwave listeners, ham radio operators who collect old receivers, and just about anyone interested in old-time radio.

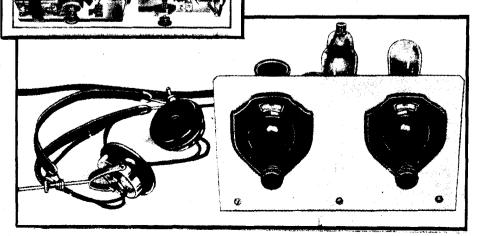
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By ROBERT HERITZBERG, WADDIT

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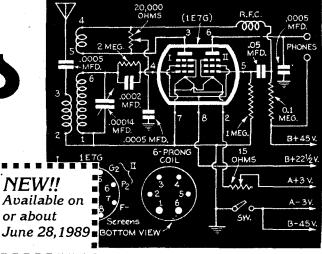
Great book. Best old-time radio book I've ever seen. And I look at every one I can get my hands on. Consider it carefully. Even if you never build one of these radios, you'll get hours of enjoyable reading out of this book. Top rate. Order a copy. 8 1/2 x 11 paperback 260 pages Cat. no. 4643 \$14.95



Building the 2-Tube "Globe-

Radio for the Millions

Great World War II Era Magazine Articles



NEW!! Available on or about

RADIO FOR THE MILLIONS by Popular Science Monthly reprinted by Lindsay Publications

From the pages of World War II vintage issues of Popular Science Magazine came this reprint of well illustrated electronics articles on everything from phonographs and shortwave radios to cabinet design and radio servicing.

This is another of those jampacked project books that are so much fun to read. By careful scrounging and trading you can still get many of the parts and relive the early days of electronics before transistors and integrated circuits.

Every one of the dozens of articles is illustrated with sharp photographs, schematic diagrams, and parts lists. Some of it seems really primitive and amusing. Other projects almost de-

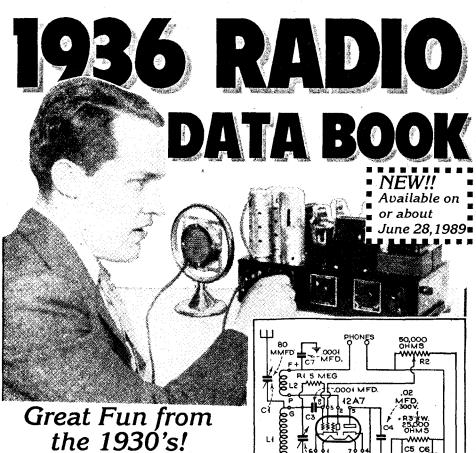
Great stuff from the days before miniature vacuum tubes. Endless enjoyable reading, especially if you remember reading this stuff as a kid. Get a copy of this. You'll really like it. 6x9 paperback

192 pages



Great Illustrated Articles!

One-Control Beginner's Radio; Get Started in Radio; Three-Tube TRF Receiver; One-Tube Loudspeaker Set; Four-Tube Speaker Receiver; Four Dollars Builds This Set; More Power for Your Two-Tube Radio; Homemade "Audio" Telegraph; Three-Tube Phonograph Receiver; Four-Tube TRF Receiver; Inexpensive Dual-Turntable Phonograph; Kitchen Radio; Two-Tube Set Gets Foreign Stations; Two-Way Radio Station; Combination Receiver and Amplifier; "Letter" Radio Can Be Mailed; Build an FM Receiver for \$22; A Tuner for Any Broadcast Set; World's Smallest PA Units; Twin-Bed Radio; Floor-Lamp Radio; Practice Code Sender and Receiver; Pocket Receiver for Sports; Tiny Portable Operates Anywhere; Low-Cost Power Supply; Three-Tube Superhet; Compact All-Wave Set; Two-Tube AC-DC Receiver; Portable Radio-Phonograph; One-Tube Shortwave Set; Sliding Panel Tunes Novel Receiver; All-Wave Bands on Two Tubes; Compact Radio-Tube Tester; Europe on One Tube; Bicycle Radio; "B" Supply for Portables; Priority Receiver Uses New Tuning: Compact Rectifier Unit; Midget Broadcast Set; Week-Ender's Radio; Midge AC-DC Receiver; Book-End Radio for Your Den; One-Tube All-Electric Set; Superhet for Beginners; Pocket-Size Radio Tester; "Wireless' Radio Phonograph; Low-Cost Home Recorder; Tom Thumb Radio; Suitcase Phonograph; Two-Tube Portable; Library-Table Radio; All-Purpose Portable; One-Tube Receiver; High-Fidelity Amplifier; Small Radio with 400-Mile Range; Dressing-Table Radio; (Init Kills Fading; All-Wave Amateur's Receiver; Camper's Radio; Television Antenna; Universal Power Supply; Tiny Radio Uses Two Detectors; Portable AC-DC Signal Tester; Book-Light Radio; Around-the-World Receiver; Two-Tube Radio Phonograph; Cabinet Ideas; Caneand-Seat Radio; Vacation Portable; Bed Radio; Suppressor Reduces Static; Emergency Receiver; Light-Beam Transmitter; Blackout Receiver; Vest-Pocket REceiver; Football-Fan's Radio; Pocket-Notebook Radio; Novel Lamp Radio; Pilot Lights, Rectifier Tube, Squealing, Paper Tubular Condenser; Various Causes of Humming; Bring Your Radio Up to Date; REception, Volume Control, Dead Speaker, Connecting a Pickup; How to Build a Loop Antenna: Line-Cord Breaks, Dail Pointers, Fuzzy Operation, Ballast Tubes; Fixed Condensers, Reception, Fade Out, Humming; How to Refinish Your Radio Cabinet; Faulty Heater, Extending Reception, Noisy Condenser, Midget Circuit; Neon Condenser Tester, Defective Resistors, Pilot Light, Fading Reception; Battery Testing, Loop Antenna, Substitute Batteries, Loose Batteries; How to Correct Dial Troubles



1936 RADIO DATA BOOK

bu Radio News Magazine reprinted by Lindsay Publications

Get the latest radio news by studying the best articles from the 1935 issues of Radio News and Shortwave Radio Magazine.

Learn about the latest developments in television - disk scanning versus cathode ray systems. Learn about a new Canadian television station.

You'll discover the brand new metal octalbase tubes and the receivers that use them such as the Atwater Kent 649, the GE A-82, and the Super Skyrider. You get plans for shortwave radios: a single tube all-wave set, a 3-band set, and 9-tube amateur receiver, and more.

Amateurs learn how to build transmitters, a 3/4 meter transceiver, and how to use the latest transmitting tubes.

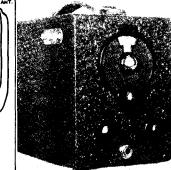
Learn to build broadcast receivers: a universal superhet, a 2-volt DX'ers Super, a Superhet De Luxe, and more.

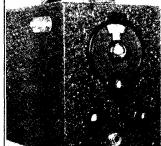
You also get articles on servicing, on audio amplifiers, on engineering design, and on radio experimenting. And you also get lists of stations broadcasting in the US and world shortwave

stations. Every page will well illustrated with photos, schematics, drawings and tables.

This is a fun book for old-time radio buffs. It's useful if you're a builder, and great reading whether you build or not. Another fascinating book for your radio reference library. 8 1/2 x 11 paperback 64 pages

Cat. no. 20218 \$5.95





EXPERIMENTAL SCIENCE

by George M. Hopkins

Fantastic! There is no other way to describe this incredibly illustrated two-volume set from 1906. It is certainly worth having.

Starting about 1889 "Scientific American" Magazine published a regular column by George Hopkins showing readers how they could build experimental equipment and test their own versions of new inventions such as the electric light, telephone, and phonograph. Hopkins' columns were routinely reprinted in books, and this 25th edition from 1906 had to be split into two volumes. And what a pair of volumes they are!

You'll find some of the most fantastic wood engravings ever, illustrating experimental equipment of all types.

Volume One consists of nineteen chapters on rest, motion, force, gyroscopes, liquids, gases, sound, heat, light, polarized light, microscopy, photography, magnetism, frictional (static) electricity, dynamic electricity.

Build a gyroscope, Foucault's pendulum, a simple hydraulic press, a hydraulic ram, simple air pump, Geissler tube, a recorder for sound vibrations, device for production of sounding waves, a simple phonograph, centrifugal siren, and Norremberg Doubler. And these are just a few of the projects in only the first half of the first volume!

You can build a simple microscope and accessories, or a simple camera with plate holder, make Daguerreotype photos like those from the 1840's (dangerous), experiment with magnets, static electricity, build all kinds of batteries, a device that converts heat directly into electricity, build bells, electromagnets, and even a 1/4 hp electric motor.

Volume Two will take you into more electricity by investigating AC electricity, arc lamps, high voltage induction coils, and much more. You can build a telephone. Build a magic lantern and perform a variety of interesting projections.

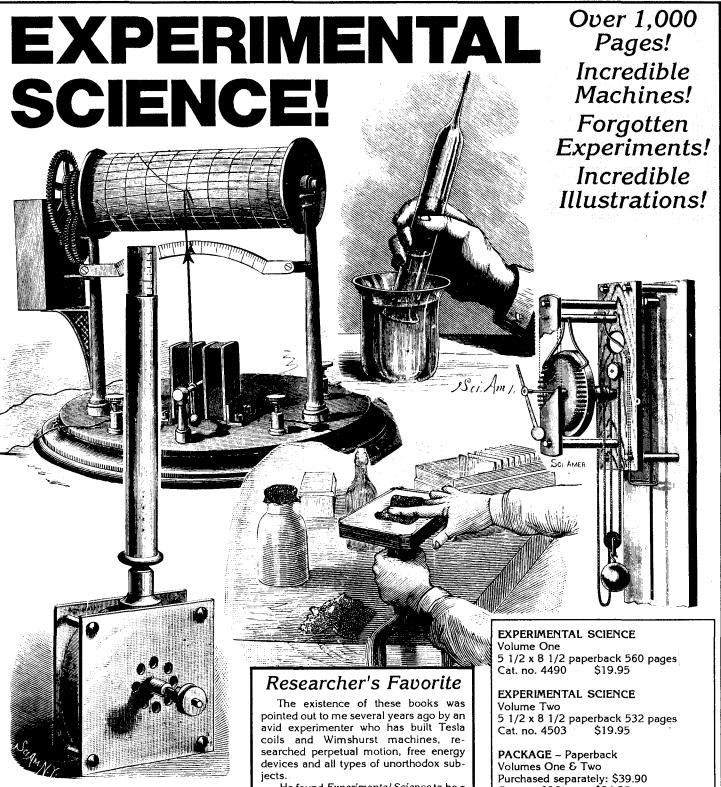
You'll get practical how-to on blowing glass, making lenses, etching glass, making test tube racks and the like, making and using a crucible furnace, sand casting, making carbon rods and plates, and more.

You'll be shown how to perform a variety of scientific parlor tricks. Discover scientific uses for the phonograph, build an opaque projector, and a simple acetylene gas generator. Try experiments with super cold liquid air, or new advances in photography including color photography, divining rods and metal detectors, long distance telephony, new wireless telegraphy, building an electric clock, high voltage experiments, even poly phase electricity

If you haven't guessed by now, this is both an introduction to physics and simple directions for building strange mechanical equipment.

The how-to you get is not overly detailed. You're expected to have some mechanical ability. You WILL get excellent illustrations that will show you almost everything you need to know. Any additional secrets are pointed out in

If you want to build and run scientific equipment that hasn't even been seen in decades, you should have this. Kids can build a unique



science fair project. Old book lovers will treasure this. And if you love machines, you will get hours and hours of enjoyable reading.

It's impossible to reveal the scope and beauty of these two books in the limited space this catalog provides. But take my word for it, these are fascinating books. Top quality. Expensive, but worth the price. Look them over carefully.

He found Experimental Science to be a very valuable reference, but because of its rarity, he hadn't been able to buy a set of his own. When I told him that I was going to take a chance on reprinting the two volume set, he jumped for joy. Now he can afford his own set. So can you.

We're confident you'll find Experimental Science as much fun and as useful as we have.

Cat. no. 926

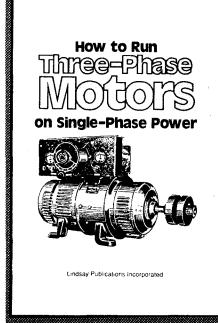
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Both volumes in sewn hardcover bindings for libraries and collectors. Available in sets only. Relatively few hardcover volumes have been printed. Availability may be unpredictable.

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\$48.95

Run Three-Phase Motors on Single Phase



HOW TO RUN THREE PHASE MOTORS ON SINGLE PHASE POWER

Yes! You can run three-phase motors on single-phase power using any one of three excellent methods. First, lathes, drill presses, and other machine tool motors can be run with the capacitor method. Second, the autoformer method (a technique you should buy rather than build) is useful for motors running under continuous full load. And finally you can run a whole shop full of three-phase motors from a single, easy-to-build dynamic converter! No rewinding is necessary. These methods are good to at least 150 hp and 440 volts! Low starting currents and excellent power factor are possible.

Basic three-phase and induction motor theory is included. Complete with drawings, diagrams, and capacitor values.

4 1/2 x 7 booklet 20 pages, 18 illustrations a BARGAINI

Cat. No. 81

only \$3.00

"I carry only the best books I can find — only those books I would love to buy..."

12 Shortwave Receivers from Hammarlund!

Great 1937 Plan Book!

HAMMARLUND SHORT WAVE MANUAL Third Edition

reprinted by Lindsay Publications Inc

For only ten cents you could by this 32 page booklet and choose which of the twelve different shortwave radios you wanted to build. These were the depression years, and Hammarlund, one of the most reputable manufacturer of radio parts, was eager to sell you what you needed to build a low-cost

You'll like this! The plans offer interesting detailed text that makes construction easy along with the basic schematic diagram, a parts connection diagram, tube pin layouts, coil charts and lots of photographs. I haven't seen any plans better done than these!

You get--

- A Boy Scout's S.W. Receiver
- •ARRL Ham Receiver
- •The Argonaut
- •The AC-DC 2 Tube S.W. Receiver
- •Doerle 2-Tube Receiver
- The Dragnet
- •The Gainer
- •The Pentaflex
- A Power Pack for S.W. Receivers
- •Radio Amateur's Handbook 3-Tube Band Spread AC set
- The Ray Five Meter Set
- The Skyscraper
- A Three Tube S.W. Pentode Receiver

This is great stuffl For instance the "AC-DC 2-Tube SW Receiver" uses two double tubes, a 6F7 as an untuned RF amplifier and a tuned regenerative detector, and a 12A7 as audio amplifier and rectifier. The circuit is surprisingly simple, and yet I'm sure it performs very well!

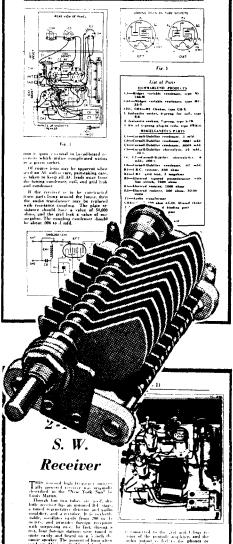
The "Pentaflex" uses a single 6A7 pentagrid converter tube as a regenerative detector and as an audio amplifier. This could be fun to build.

And the "Ray Five Meter Set" is a three tube super-regenerative set for the then-experimental band of 5 meters (about 60 mHz). Back then a five meter set was a marvell

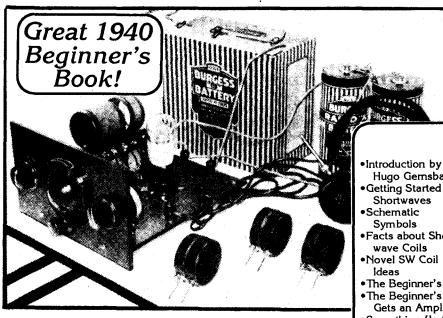
And there are nine other circuits plus a battery eliminator project.

This is fun reading and a great source of construction ideas. Get a copy of this. The price is reasonable and the content is super. Order a copy today. You'll enjoy it. 5 1/2 x 8 1/2 booklet 32 pages

Cat. no. 4937



1937 SHORT WAVE MANUAL



Shortwave Beginner's

SHORTWAVE **BEGINNER'S BOOK** by Radio & Television Magazine

reprinted by Lindsay Publications

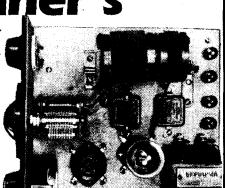
The full title is "Short Wave Beginner's Book including a complete course of instruction in shortwave; details for making short-wave aerials; a complete beginner's set; coil winding data; operating kinks." And it's 36 pages of dynamite ideas from 1940.

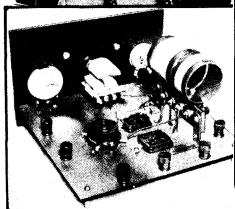
Wave Short Beginner's Book was targeted for the raw beginner. It explains everything in detail, showing the reader not only the schematic but diagrams of what wire to hook where. Even tem-

plates are provided for drilling the chassis. Very little is left to the imagination.

True, the sets are not overly sophisticated, but they're a great place to start. For instance the beginner's set uses a single 30 vacuum tube with a 45 volt B battery. In the next chapter another 30 tube is added as an audio am-

You get excellent discussions on topics such as coupling amplifier circuits, insulators





Hugo Gernsback Getting Started in Shortwaves

 Schematic Symbols 5 8 1

Facts about Shortwave Coils

 Novel SW Coil Ideas

•The Beginner's Set •The Beginner's Set

Gets an Amplifier Smoothing Up the Regeneration Control

 New Kinks for the SW set

·Which Regeneration Scheme?

 Tuning the Short Wave Receiver

How to Make Worth-While Audio Amplifiers

Short Wave Operating Hints Coupling the RF

Stage to Detector

· Audio Amplifiers for SW Sets

Methods of Coupling to Speakers

Aerials for Short-Wave Receivers

 Good Antenna Design

 Some Things You Don't Know About Aerials

Learning the Code

•Home-Made Antenna Coupling Condensers

 A Panel Mounting SW Coil Assembly

A Meter-Kilocycle Conversion Chart

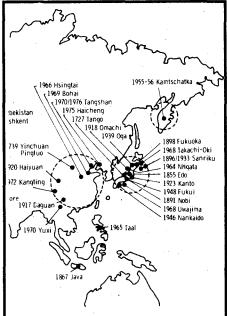
\$4.95

that can be used on shortwave antennas, and code practice oscillators. And everything is nicely illustrated.

Here's another fun old-time shortwave radio book you should have. And it's reasonably priced! It's another MUST for your old time radio book collection. Order a copy. 7x9 booklet 36 pages

Cat. no. 4961

WHEN SNAKES AWAKE!



WHEN THE SNAKES AWAKE Animals & Earthquake Prediction bu Helmut Tributsch

From the back cover: "Two days before an earthquake struck Helice, Greece, in 373 BC, snakes, weasels, and worms deserted the city. Minutes before the Naples quake of 1805, oxen, sheep, dogs, and geese cried out in unison. A herd of horses tore loose and ran off in panic just prior to the San Francisco earthquake of

Helmut Tributsch, Professor of Physical Chemistry at the Free University of Berlin, visited his native village of Friuli shortly after it had been devastated by an earthquake in 1976. He was intrigued by the stories told by old friends about their animals' strange behavior in the hours before the quake. This experience started Tributsch on a search through ancient and modern literature for stories relating animal behavior and the appearance of such phenomena as luminosity, clouded springs, and strange fogs to the onset of earthquakes. This book summarizes his findings and presents a plausible explanation for them. Tributsch urges Western scientists to follow the lead of their Chinese colleagues and learn to use these signs as a possible key to the prediction of natural disasters."

This is really an interesting book published by MIT covering 78 earthquakes from 373 BC to 1979 and the unusual phenomena that accompanied them. Not only is it interesting reading, but researches into the fringes of science will find the tables in the appendices quite useful.

Unusual. Reliable. I think you'll like it. 6x9 paperback 248 pages \$9.95 Cat. no. 752

Amazing "Radio Craft" Magazine from 1938



RADIO CRAFT MAGAZINE March 1938

edited by Hugo Gernsback

Radio got its start in the 1920's, but it wasn't until the 30's that it made it to the big time. By the late 30's "Radio-Craft" was one of many magazines entertaining and educating radio builders and enthusiasts.

In March 1938 the magazine published a special heavily illustrated edition on radio's first 50 years. And now you can have a complete reprint of that dynamite issue.

Articles include progress of radio receivers, reminiscences of old-timers, story of amateur radio, radio parts of yesteryear, mileposts in television, Fleming's valve, old-time radio stations, new tubes for '37-'38, super-regenération in 1922, when the neutrodyne made its bow, early tube experiments and much, much more.

You get every fascinating article, advertisement and how-to construction tip. Great reading for anyone with even a slight interest in oldtime radio. Excellent book. Fun reading. Order a copyl 8 1/2 x 11 paperback 144 pp Cat. no. 353 \$14.95

Radio of the 1920's!

Incredible new collection of ads, photographs, magazine articles!



RADIO MANUFACTURERS OF THE 1920's by Alan Douglas

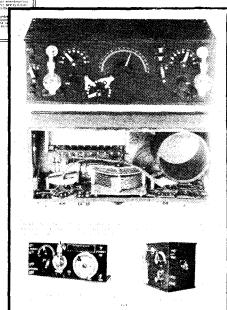
If you love old radio equipment like I do, you'll really enjoy this. This, the first of two volumes, covers apparatus manufactured by A-C Dayton through J. B. Ferguson.

You get a big book of wall-to-wall illustrations of home console radios, crystal sets, regenerative sets sold to receive messages from MacMillian's North Pole expedition in 1925, ads for parts, magazine articles taking you inside radio factories and much more.

This is nostalgia, rather than how-to. But! If you're building old circuits, doing restorations, or just want to build a radio that looks old, you'll find more ideas than you can ever use. You'll like this "time machine" back to the 1920's when radio was taking off

As an old radio buff, I wish I had published this. I think you'll like it, too. 8 1/2 x 11 paperback 225 pages

\$19.95

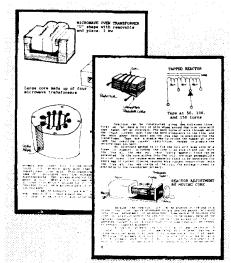


your

dreams!

Cat. no. 356

Welder!



How to Design and **BUILD A 200 AMP WELDER**

You can find many different welders on the market, so why even consider building one? Maybe you can save money. Perhaps you need something bigger than 200 amps and want to scale up a standard design. Of course, there's always the pride of being able to say you built it yourself. Or perhaps you would just like to know how they work.

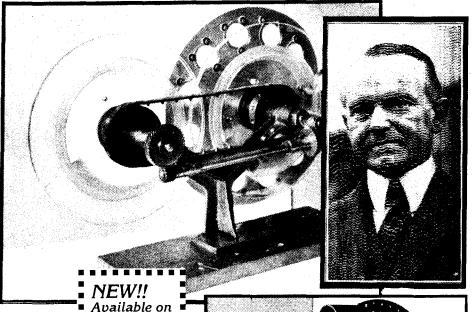
Here's a publication for the mechanic (the non-electrician) - an introduction to transformer welders. You'll learn how transformers work, what is and is not important in the design of a welder transformer, how current is controlled, how an AC to DC rectifier bank is built, and more. You can design welders for 100, 200 or more amps using the principles revealed here.

You will NOT get complicated theory. You get information that has been learned by study and by doing, rather than from designing transformers as a profession. You'll learn the unique aspects of controlling heavy welder currents. This is information generally available nowhere else. After reading and studying this manual, you'll probably want to refer to other books which cover heavy transformer design theory, details on silicon steel, wire types, design problems and much more.

You can build a single transformer that can kick out heavy currents for welding, thawing pipes, AND, when used with a bridge rectifier, can be used to charge batteries, electroplate and more.

Get a copy of this hot little manual. You'll find that it is very clearly written and easy-toread. This is the FIRST book you should consider before building or even possibly repairing a transformer welder. Order a copy today. 5 1/ 2 x 8 1/2 30 pages. Cat. No. 85

Build A Early FAX & TV Powerful Equipment! Rare!



Vision **Radio!**

VISION BY RADIO

Radio Photographs, Radio Photograms by C. Francis Jenkins

Go back to 1925 and discover the latest devices developed to transmit photographs, in other words, the earliest fax machines and the earliest televisions!

or about

June 28.1989

This is an amazing book! You get details on the electrical components that existed at the time, the tests that had been tried, correspondence from famous people, and historical

The most interesting section, I think, is illustrated review of existing machines: Nipkow & Sutton, the Amstutz system, the Electrograph, the Baker machine, the Dr. Korn Machine, the Rignoux and Fournier Scheme, the Belin machine, the AT&T machine, RCA's machine, the Braun Tube receiver, pictures by radio in natural colors (1), prismatic disc machines, the Jenkins prismatic ring, Jenkins synchronizing forks, Jenkins picture-strip machine, Jenkins Duplex machine, talking machine photograms, radio vision (television), Jenkins high speed camera, and more.

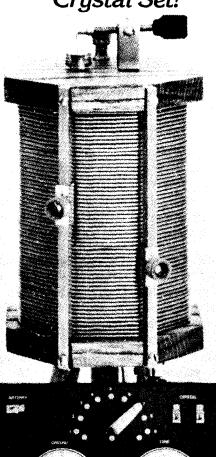
Obviously, this book was written and published to glorify Jenkins and Jenkins Laboratories Inc (no doubt so he could make more money). But it delivers more photos, drawings, and patents on early fax and TV equipment than I've ever seen anywhere before.

It's really good, and the price we ask is a mere fraction of what you'd pay for an original if you could find one. Rare information! Excellent book. Get a copyl 5 1/2 x 8 1/2 paperback 140 pages

Cat. no. 20200

FOR FREE!

Build a High Performance Crystal Set!



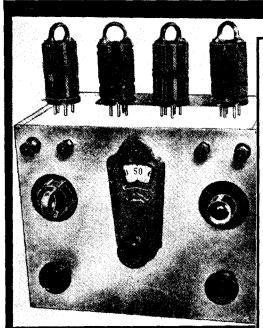
RADIOS THAT WORK FOR FREE by K.E. Edwards

Build yourself a crystal set! You'll be shown everything you need to know - from materials to tools to techniques. Edwards will show you how to build "hot-rod" crystal sets with fancy features that can outperform the old oatmeal box versions, but are still simple. If you've never built anything electronic at any time but would like to try, this is a great place to start. This book has become a classic in its field, and it gives me a good feeling. I think you'll like it, too. 5 1/2 x 8 1/2 paperback 138 pages --- well illustrated

Cat. No. 314

\$7.95

RADIOS How To Build & Operate THAT WORK SHORTWAVE RECEIVERS



How to Build & Operate Short Wave Receivers

by Short Wave Craft Magazine reprinted by Lindsay Publications

"Including Receivers for Beginners, Short Wave Converters, S-W Superheterodynes, Super-Regenerators, Television Receivers'

In his preface publisher Hugo Gernsback wrote, "The present volume is a combination of a great deal of the best constructional, Short Wave material that has come out during the past year. All of the circuits have been brought up to date, and there will be found here much that is new for the experimenter in short

We have carefully sought to keep the contents up to the title of the book, and you will find that it is 100% 'How to Make and Operate.'

And it sure is. Jam packed in this fascinating little book are the best articles from back issues of Short Wave Craft magazine. We call, it 1934 because that's the year it was published. Yet the preface

and the original copyright carry a 1932 date. You'll learn how to build bandswitching receivers, high performance multi-tube sets. power audio amplifiers, RF amplifiers, and much more. You'll enjoy the ads for parts, other books, and even experimental television systems using the old Nipkow scanning discs.

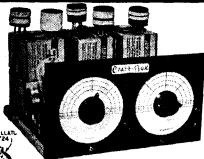
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"My Favorite" Short Wave Receiver
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How to Gain Detector Sensitivity How to Use RF Chokes Practical Hints on Reception Adding Untuned Stage to SW Converter "Separate" Regeneration Tube Coil and Condenser Data

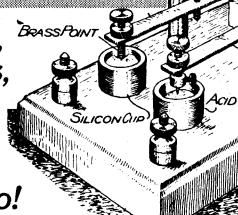


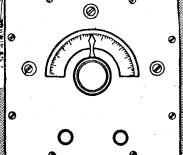
Even if you never attempt to build any of this equipment, you'll still find this enjoyable reading. This is one of those low cost booklets advertised in the back of the early radio magazines that were published by the thousands but have now practically disappeared. You get all 72 original pages.

Interesting little publication. One of those booklets I read cover to cover a hundred times as a kid. I never thought I'd get my hands on another copy. You'll like it. Order a copy. 8 1/ 2 x 11 paperback 72 pages well illustrated Cat. no. 20129

High Power Wireless Equipment!

Tesla Equipment, Crystal Detectors, Rare Radio
Equipment from 1910-11!
Incredible How-To!





HIGH POWER WIRELESS EQUIPMENT

🕻 by Alfred Morgan

reprinted from Popular Electricity Magazine 1910-11

If you wanted to try your hand at the newest 1910 electricial craze of transmitting telegraphy without wires, you had to build your equipment. The few pieces of equipment available commercially would probably have been way beyond your pocket book.

Here, in a series of fifteen installments, Alfred Morgan provided his readers with complete, detailed, dimensioned directions for building everything from the key to the aerial, from the induction coil and spark gap, to the helical transmitting coils. As a slice of early radio history this is fascinating reading.

You won't want to build a spark-gap transmitter, they're inefficient and illegal to operate. But you'll find bits and pieces quite valuable. If you build crystal sets, you'll find the detectors very valuable.

If you like to build high voltage equipment, you'll find the induction coil, spark gaps, condenser and other plans useful. Early transmitters were essentially Tesla coils turned off and on with a key. A later chapter actually describes Tesla and the work he did, how to

actually describes Tesla and the work he did, how to build one of his coils, how to use his equipment in

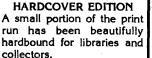
wireless telegraphy.

And you'll find a chapter loaded with hints and kinks on everything from building condensers and using a coherer detector to how enamel wire and make a variometer.

This is all practical hands-on early radio and high-voltage electricity reprinted from the original hard-to-find magazines. Think about the possibilities. It might be fun to build an old wireless station just to show people today how it was done before semiconductors. No matter what your angle or interest is, you'll find this detailed how-to to be fascinating. Excellent rare, early information! Order a copy of this. It's worth having. 5 1/2 x 8 1/2 paperback 99 pages

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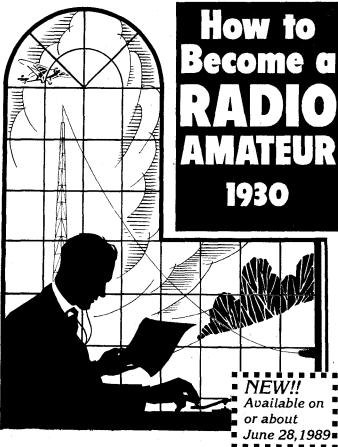
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HOW TO BECOME A RADIO AMATEUR (1930)

by the American Radio Relay League

reprinted by Lindsay Publications In 1930 thousands of people were not only fascinated by the arrival of broadcast radio, but by the magic long distance communication possible through shortwaves. This simple booklet was

intended to draft many of those people into the hobby of ham radio.

Here you'll discover the ama-

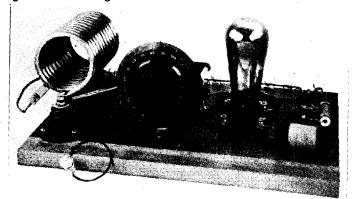
teur bands as they then existed, how to learn Morse code, how to build a two-tube (UV-201-A) bread board regenerative receiver for the 80 meter band, an oscillating transmitter using a UX-210

Build a 1930 Ham Radio Station!

tube, an AC power supply, tips on setting up the radio station, and finally how to operate it.

Not only is this great nostalgia, it is also quite practical should you want to build a copy of the regenerative receiver. You may want to build a copy of the transmitter for display or occasional demonstration, but you probably wouldn't want to use it on the air.

Discover 1930 ham radio. Build early equipment. Lots of fun reading. Low cost. Get a copy. 8 1/2 x 11booklet —32 pages Cat. no. 20226 \$2.95



Nikola Tesla Writings

CONTENTS

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Motor with a Condenser in the Armature Circuit

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 The London Lecture. Experiments with Alternate Currents of High Potential and High Frequency, February 3, 1892

 The Philadelpia and St. Louis Lecture. On Light and Other High Frequency Phenomena, February and March, 1893

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Anti-Sparking Dynamo Brush and Commutator

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• Improvement in Unipolar Generators.

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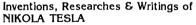
• Mr. Tesla's Personal Exhibit at the World's Fair

The Tesla Mechanical and Electrical Oscillators.

Inventions, Researches & Writings of

NIKOLA TESLA

Incredible inventions! AC Power, High Voltage, High Frequency, Oil Condensers, even maanet motors!



bu Thomas Commerford Martin reprinted by Lindsay Publications Inc

The greatest world's fair ever constructed was underway in Chicago in 1893. More electricity and more electric lights were used in the fair than in the entire city of Chicago, It was the electric age, and Edison was doing with commercial battle with Westinghouse and its star, Nikola Tesla.

In 1893, this volume, a comprehensive collection of Tesla's work to that point, was published. And although it is now quite rare, you can have a high quality reprint for a small fraction of what cost us to obtain an original

Most people think of lightning generators when they think of Tesla, but that's a very narrow perspective. People should think of alternating current. Tesla created the power system used throughout the world today one that operates at 50 and 60 cycles per second.

Tesla experimented with other frequencies, iron and air core transformers, as well as motors and generators. Tesla didn't just one day decide he was going to build his famous lightning bolt generator. It was but another step in a series of experiments that had begun years before. Here you get a complete record of this research up to 1893.

It's all here - the AC experiments and inventions that lead Tesla to experiment with ever higher voltages and frequencies, the neon

Rare 1893 Tesla book now back in print! All Tesla work to that date!

tubes and flourescent lights, unusual high frequency alternators and even magnet motors.

If you want to carry on Tesla's unusual research, you must walk in his footsteps. You must do your homework. Here in one volume is the early work that will help you get your mind in sync with his and perhaps suggest what he was thinking at the time, and give you

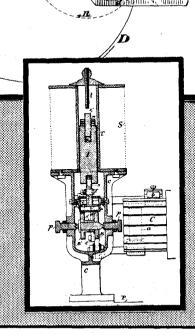
ideas of where to take his experi-

Every Tesla fan, every high voltage experimenter, and every electrical engineer should have a copy of this classic book. Just as much as Edison, Tesla created the world in which we live today. Now you can study the results of

his research, attend his special exhibitions, and devour his lectures, with this single volume. Order a copy today! 5 1/2 x 8 1/2 paperback 496 pages

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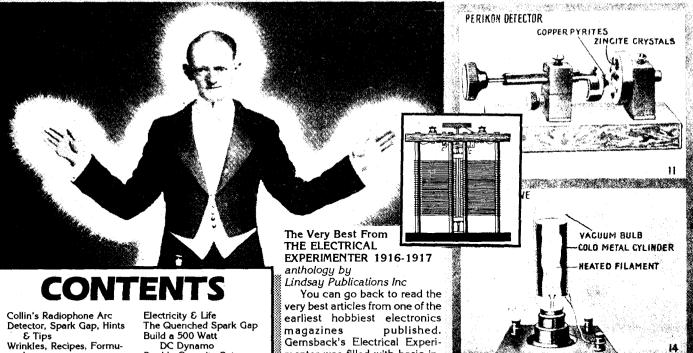
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Light A Simplified Variable Condenser

Constructing a 1/4 KW High Frequency Oudin

Construction of a Laboratory Vacuum Pump

Regarding Tesla & Oudin Coils How I Telegraph Pictures

How to Use High Frequency Currents in the Treatment of Disease

menter was filled with basic information, ads for early equip-

ment, and most importantly how-to projects designed to be built from the most primitive materials.

Readers learned how to build unusual crystal set receivers with unusual detectors, high power wireless sets, and all the equipment that went into their construc-

tion. Today, you buy electronic equipment, put batteries in it, and turn it on. Back then you built your batteries!

You'll find how-to articles on high voltage Tesla coils, induction coils, spark gap construction, batteries, detectors, water power systems, selenium cells for experimenting with primitive television systems, and more.

You get theoretical papers by MD's describing how new electrical equipment would revolutionize medicine. You get history on Fessenden and Tesla. You'll learn how to

measure capacity, and much more. You get the very best articles from this two year span, and by best we mean plans and information that is very difficult to find today. Many articles that cover the basics of electricity were omitted because you can find comparable material in modern magazines. Some plans were omitted because they were not unusual enough, such as motor and dynamo

plans. You can find such plans in many old books.

What you will find is solid, interesting and useful information. Be careful, though! Some of this info is downright dangerous. You can get yourself electrocuted. You can give you and your neighbors cancer if you build and operate an X-Ray machine. Be very careful.

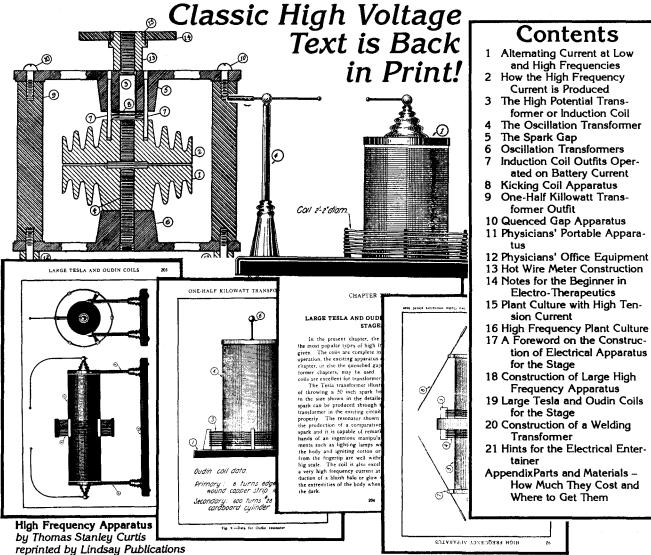
This is a great collection of rare material - something you should have in your reference library. Wall-to-wall il-

lustrations! Interesting reading. Order a copyl 8 1/2 x 11 paperback 108 pages Cat. no. 20137



You should know that most of the photographs in this book are not of the best quality. Poor originals, yellowed paper, oversized pages have combined to make the photographs "muddy". The drawings are very sharp, and most type is quite readable, but the photos leave something to be desired. All we can say is that we did the best job we could. See what you think.

HIGH FREQUENCY APPARATUS



By 1916 so much interest in induction, Tesla and Oudin coils had been generated by Electrician & Mechanic, Popular Electricity and Modern Mechanics, and The World's Advances magazines, that Curtis knew his book and high voltage equip-

ment he manufactured would be a hit.

Because of their very nature, magazines could publish only brief articles on these lightning bolt generators. Curtis went the other extreme, and packed "Apparatus" with as much detailed information as he could find. Then he added suggestions for experiments and dozens of illustrations. The result is now a classic book, and original copies are so coveted that they're difficult to find.

You get wall-to-wall how-to on coil construction. Tips on calculating windings, winding coils, making transformers, interrupters and spark gaps, and even the power transformers that drive the spark gap.

If you want to die young, you can build an X-ray apparatus. Use it long enough, and you and everyone in your apartment

building will glow in the dark!

Build a grid and see for yourself if high frequency current really does affect plant growth. Build yourself a large coil that produces 50" lightning bolts, give lectures, and make people think you are a genuine made scientist. (Bring your mother-in-law along. They might mistake her for Frankenstein....)

Great book. And absolutely MUST HAVE book for the Tesla coil experimenters. Get a copy for your high-voltage library. Quality. Order a copy today. 5 1/2 x 8 1/2 paper 247 pages well illustrated

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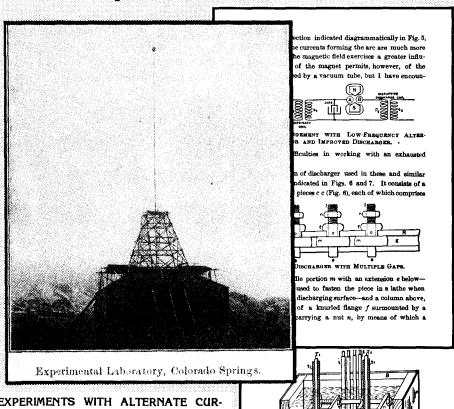
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15

Tesla's Experiments Permanent with Alternate Currents! Magnet

Power transmission without wires: the London Lecture plus a 1904 magazine article on the Colorado Springs experiments! Rare book!



EXPERIMENTS WITH ALTERNATE CURRENTS of High Potential & High Frequency by Nikola Tesla

"A lecture delivered before the institution of electrical engineers, London, by Nikola Tesla with an appendix by the same author on the transmission of electric energy without wire, reviewing his recent work, and presenting illustrations from the photographs never before published".

Quite a titlel Quite a book! There's so much written and published about Tesla (and too much of it is pure garbage), that it is refreshing to have the inventor himself explain his experiments, theories, and plans. It's all here, every page from the original 1904 book — complete with unusual illustrations showing disruptive discharge coils, improved discharger and magnet, luminous discs, single wire and no wire motor, unusual electric lights for use with the high-frequency AC that is generated by the Tesla coil, and much more.

The last fourteen pages of the book is a reprint of Tesla's article from the March 5, 1904 issue of "Electrical World and Engineer" complete with photographs of the experimental apparatus at Colorado Springs and Long Island built to test the transmission of electrical power without wires.

Fig. 3.—Disaurrive Discharge Coll.

coil and other apparatus used in the experiments with the disruptive discharge this evening.

It is contained in a box B (Fig. 8) of thick boards of hard wood, covered on the outside with sinc sheet Z, which is

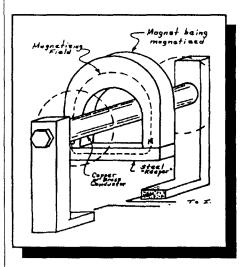
Anyone who studies Tesla, builds his coils, or wants to perfect the inventions that Tesla didn't have time to finish should have a copy of this book. The writings of Tesla himself should be the comerstone of any Tesla library, and here is your chance to get your own copy of this now-rare book. Interesting reading. Historically important. Get a copy.

5 1/2 x 8 1/2 paperback 170 pages.

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Permanent Magnet Design & Application Handbook!

State-of-the-art



PERMANENT MAGNET DESIGN & APPLICATION HANDBOOK

by Lester Moskowitz

Back in print! For now at least... The best magnet book I've seen.

Opening this book gives you the feeling you've opened the lab notebook of a famous magnet scientist. It's loaded with drawings, diagrams, equations, notes, hints, tips, circuit diagrams and more.

Chapters include brief history of magnets, terms and definitions, classification of magnets and materials, basic manufacturing processes, fundamentals of magnetism, general design considerations, leakage and fringing, circuit effects, exact design methods, and on and on.

You get all kinds of information and making, testing and using magnets from a circuit diagram for a 100 joule impulse magnetizer to suggestions for use in magnetic drives, motors and magnetos, magnetic welding benches and much more.

Expensivel But the best book of its type I've ever seen. Just the right mix of theory and practical application. Rare information. If you think you'll ever need it, get it now. It went out of print once, and is being reprinted (probably only for a short time) by another small publisher. I'm glad to see it's back. 9x12 hardcover 443 pages heavily illustrated

Cat. no. 1149 \$65.00

Tesla Coil Secrets!

TESLA COIL SECRETS

by R. A. Ford

Be the first on your block to blast your neighborhood with high voltage! Shock the socks off your friends and relatives! Zap those pesky cats digging in the garbage can! Make people think you really are building a Frankenstein monster in your basement!

As you know, a Tesla coil is a high voltage transformer. Nikola Tesla used it at the turn of the century to generate lightning bolts and to investigate the wireless transmission of electrical power.

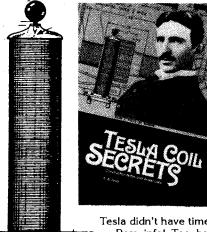
This fascinating book is not really a how-to-build book.

Actually, an avid researcher who has built several coils and has accumulated articles, clippings, notes, and bits-and-pieces over the years has opened up his scrapbooks to us.

You'll see all the interesting hints, plans, and wiring diagrams gleaned from early magazines that ceased publication decades ago along with formulas, notes, and observations he believes are important for building powerful coils. Many of the old articles are so detailed that you can probably use them to build a powerful experimental coil. There are notes on one machine the could kick out five foot lightning bolts!

If you're really into Tesla coils, you may have seen a few of these clippings already. But I'll bet there are others you haven't seen. You'll get info on rotary spark gaps, anti-kickback devices, Leyden jar capacitor construction, conical Tesla coils, Oudin coils, and suggestions on research into wireless power transmission, plant growth stimulation, medical uses, and more.

Many of the reprinted articles are fuzzy and a few hard to read. Most have been enlarged to bring out the contruction details, and have been



Winter's Ring

reprinted in their entirety. The difficult searching has been done. You can spend your time building and experimenting.

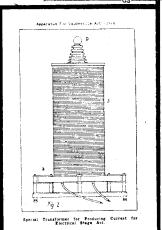
Be warnedi You'll be working with high-voltage high-frequency devices from another era. Tesla coils can be very dangerous. But maybe you can be the one to rediscover the secrets

Tesla didn't have time to pursue or reveal.

Rare info! Too bad the book isn't ten times bigger. Get a copy for the reference library if for no other reason. Interesting reading. Recommended!

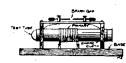
5 1/2 x 8 1/2 paperback 74 pages Cat. no. 4317

> Private Notebook of Tesla Coil Builder



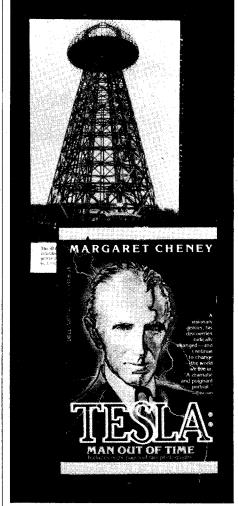
A MINIATURE TESLA COIL. A MINIATURE TESLA COIL.

Most owners of small induction coils have at some time or other wished that a Tesla coil giving results could be built to run on their apparatus. This article describes a Tesla coil made to work with a one-quarter inch spark coil.



Make a base 8x3x3/ inches, and two uprights two inches square and one-quarter inch thick. Now get a test tube 54/ inches long, inside diameter three-quarters inch. A cardboard tube of the same dimensions will do. Through each of the uprights drill a hole large enough to let the test tube slip through. Starting one-half inch from the end of the tube, wind on about 135 turns of No. 31 single slik copper wire, spacing the turns 1/32

Who Was Nikola Tesla?



TESLA: MAN OUT OF TIME

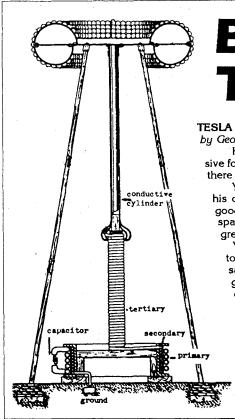
by Margaret Cheney

"Flamboyant, eccentric, almost supernaturally gifted, had he been born today he would still be ahead of his time. Called a madman by some, a genius by others, and an enigma by nearly everyone, Nikola Tesla was perhaps the greatest inventor the world has ever known...

'It was Tesla who hamessed the alternating electrical current that we use today... Tesla who actually invented radio... Tesla who invented fluorescent lighting and the incredible bladeless turbine. He introduced us to the fundamentals of robotry and computer and missile science, which continued to create and transform the future..."

There are many books about Tesla, some of them are garbage written by groupies who worship Tesla as a god. Here's a great factual biography that has gotten great reviews — the story of a wizard who was Edison's enemy. Mark Twain's friend, and J. P. Morgan's client. This is the real story. Excellent book at a reasonable price. Order a copy. 310 pages "mass" paperback a few photos Cat. no. 717

\$4.95



Build a Tesla Coil!

TESLA COIL

by George Trinkaus

Here's another Tesla coil book. It's a bit expensive for what you get, and much of it is a repeat, but there are some bits and pieces that I haven't seen.

You get a brief overview of Tesla, his career and his coil. Then you get instructions on building a good sized coil using a neon transformer and a spark gap to drive the primary. The detail is not great but is probably adequate.

You get brief discussions and details on capacitors, glass-and-foil capacitors, oil capacitors, salt-water capacitors, series and rotary spark gaps, a schematic for a 6L6 vacuum tube driven coil, construction notes, hazards, Tesla lighting, ozone disinfector, and magnifying transmitter. All this in 21 pages!

Obviously, the booklet does not go into great detail, but there are ideas and clues here that you might not have thought of yet that might be worth the price and then some. You'll have to decide. Consider it carefully. 7 x 8 1/2 booklet 21 pages Cat. no. 741 \$4.95

BUILDING

METAL LOCATORS A TREASURE HUNTER'S

PROIECT BOOK

CHARLES D. RAKES

Build a METAL LOCATOR nd search for treasure!

BUILDING METAL LOCATORS A Treasure Hunter's Project Book bu Charles D. Rakes

Metal detectors are fun to play with profitable, too, if you "shoot" coins. You can locate "treasure", tools that kids drug into the backyard and lost, studs and pipes in the walls, or frisk your mother-in-law to see if she's carrying a handgun when she comes over for Thanksgiving dinner.

BFO metal detectors are neither hard to design nor build. And chapter two will show you how to build one. But it's the plans for all the other high-performance specialized detectors that make this book shine. You'll be shown how to build balance inductance locators, transmitter/receivers, coplanar VLF locator, and some other unusual designs. You even get a chapter on how to begin treasure hunting.

Believe it or not, the circuit board can be the easiest part of a detector to build. Winding coils is usually more difficult, but you will be shown all the secrets and taught all the techniques. If you like to build useful electronic projects, try this! You can build a detector for little money that will perform as well as the high priced models. Interesting book. Rare information. A book worth having. 5 1/2 x 8 1/2 paperback 116 pages Cat. no. 352 \$9.95

Space Energy RECEIVERS



SPACE ENERGY RECEIVERS

by Simplified Technology Service

"Space energy receivers... may be defined as a class of devices which apparently collect electrical energy from the surrounding space without applied force, by some process other than chemical or mechanical action ...

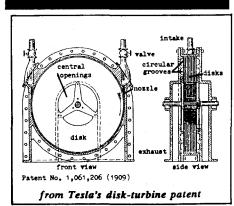
What? Pull energy out of thin air? That's what they claim. Do they work? At least a few were built to defraud gullible investors. BUTI There IS energy out there, and extracting it would be comparable to geothermal power. You're not creating energy, just tapping existing reserves.

Do the machines described here really work? Maybe. Maybe not. Whether you believe they do or not is of little importance because either way you'll find this interesting reading. You'll enjoy the photos, diagrams, and claims.

You'll learn about Tesla's patent, the Moray unit, the Yglesias machine, the Gustav Weise receiver, the Meyers machine, Hartwig's pendulum observations, Perrigo's fantastic machine seen in Congress, the Mushroom generator, and excerpts from a formerly classified British report on a world War II German machine, that is now declassified.

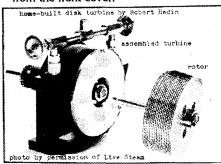
In addition, you get reference books to read, a list of experimenters, and other tidbits. It's quite interesting, and if there is one complaint I have, it's that "Receivers" is just not long enough. I think you'll like it. Very unusuall Order a copy. 8 1/2 x 11 booklet, 21 pages. Cat. No. 882 \$4.50

TESLA'S LOST Inventions!



TESLA: The Lost Inventions by George Trinkaus

"Here are the suppressed inventions of Nikola Tesla all in one place rendered in clear English and in 42 illustrations. Tesla was famous at the turn of the century for inventing the alternating-current system still in use today. But his later inventions, documented in some 30 U.S. patents between 1890 and 1921, have never been utilized as Tesla intended despite their obvious potential for advancing in fundamental ways the technology of modern civilization. Among these lost inventions: the disk-turbine rotary engine, the tesla-coil electric energy magnifier, high-frequency lighting systems, the magnifying transmitter, wireless power, and the free-energy receiver." -from the front cover.



Like Trinkaus's other Tesla book, the only major criticism that can be leveled here is that the chapters are too short. On the other hand, even if each topic were expanded into a full-blown book, you would probably find Tesla so interesting that your curiosity would still not be satisfied.

Interesting, unusual information, especially if you're just beginning your study of Tesla. Fairly priced. 8 1/2 x 7 booklet 34 pages Cat. no. 748 \$5.95

How to Build a 40,000 Volt Induction Coil Spacer Spacer S1 R4 R5 6"

7 1/2"

How to Build a 40,000 VOLT INDUCTION COIL by Walt Noon

Are you looking for a fast and simple way to generate high voltage? Then you should build this nifty little device. All of the parts should be available in your area, and depending how much experience you have building electronic equipment, you should be able to bolt it together in a few hours.

As you already know, the ignition coil in your automobile is the modern equivalent of an old time induction coil. It is nothing more

than a transformer that converts low voltage into very high voltage. The points in your automobile replace the old fashioned spark gap. Every time the points open, a pulse of DC current hits the coil like a hammer hits a bell. The ignition coil "rings" like a bell and produces a burst of high voltage. If you "hit" the coil fast enough, the ringing seems to be continuous.

Walt Noon's circuit here replaces the spark gap and

the points with a low cost solid state circuit. The circuit takes 110 VAC out of your wall and converts it into a string of DC pulses. The pulses are sent to the terminals of an ignition coil that you can purchase at your local discount store. Off the high voltage terminal comes a solid 40,000 volts that can be used for a variety experiments including plasma globes and Kirlian photography.

The circuit, based on a 555 timer integrated circuit, provides pulses with adjustable power and frequency. This allows you to easily tune the pulses to the natural resonant frequency of the coil which will significantly increase the output voltage.

You get drawings of the unit, parts list, circuit diagram, photos and assembly instructions for the coil. You are expected to have at least some experience building modern electronic equipment with perf board. You get hints, tips and suggestions on where and how to make circuit modifications.

Probably best of all, Walt includes eight different experiments plus extensive details on Kirlian photography. He'll show you how to modify an inexpensive 35mm camera to take these unusual photographs in color and black and white. You also get six Kirlian photographs taken with the equipment he shows you how to build.

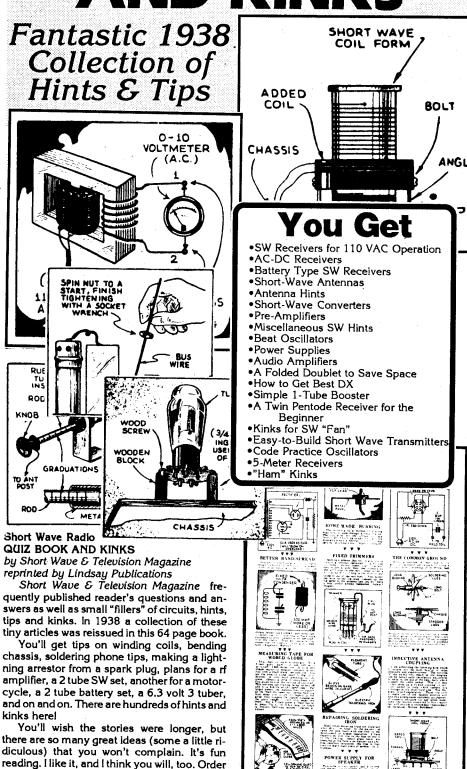
If you want to try your hand at high voltage experiments, this might be just the

way for you to "cut your teeth", and it's something you'll be proud to show your friends. And it's a good way to literally shock the pants off them! Get a copy of this. It's unusual. It's well written. And it's inexpensive. You'll like it. 5 1/2 x 8 1/2 booklet 24 pages

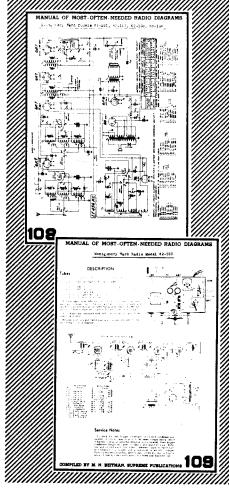
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\$4.95

Short Wave Radio QUIZ BOOK AND KINKS



Old Radio Diagrams!



Most Often Needed 1926-1938 RADIO DIAGRAMS and Servicing Information

compiled by M. N. Beitman
Reprinted from out of the past is this great
collection of wiring diagrams and service tips

collection of wiring diagrams and service tips on most of the radios likely to be encountered by a radio serviceman in 1938. You get not only the circuit diagram but in

many cases parts numbers, voltage measurements at critical points, chassis drawings, alignment specs for superheterodynes, and more.

You'll find mostly diagrams for superhets, but there are a few regens from the "old days". Many receivers have shortwave bands. And although I consider myself at least somewhat knowledgeable about old radio technology there are tube numbers used here that I've never even heard of!

If you collect radios or like to build old sets using old parts, this is for you. You'll find everything from Atwater-Kents to Zenith radios listed. A valuable reference. Good stuff. Consider it carefully. 8 1/2 x 11 paperback 240 pages

Cat. no. 362

\$11.95

a copy. 5 1/2 x 8 1/2 paperback 64 pages Cat. no. 4945 \$4.95

UNUSUA

MECHANICS NOTE-**BOOK 20** Old Magazine Plans reprinted by Lindsay Publications

Just after the first world war, unusual, often downright strange magazines appeared on the market to take care of the public's hunger for news on inventions and scientific experiments.

After years of searching and many dollars expended, we managed to accumulate a couple of dozen copies of various magazines such as "Everyday Engineering Magazine", "Electrical Experimenter", "Practical Electrics" and "Science and Invention".

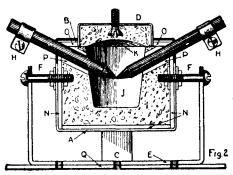
Although most of the articles are ridiculously

funny because of their inaccurate theory, wrong conclusions, or prediction of bizarre future inventions, there are a few really inter-

TERMINAL OF HIGH END OF WINDING POTENTIAL HALF COPPER BALL 4" DIA. SECONDARY 423 T. Nº 18 ENAM. WIRE. 18 T. TO I" L. OF WINDING 23.5" `₽X 3₽ DIA 4 DIA SECTION A-A PRIMARY 4.T. STRAND WIRE BEGINNING OF WINDING 3 GLASS POTENTIAL TERMINAL

> esting construction articles that are still useful today. In this oversize notebook you get the win-

> > Build a guide that turns a common file into a remarkably good milling machine. Get two different sets of plans for building unusually sensitive laboratory chemical balances. Build a small electric arc furnace with water rheostat capable of reaching temperatures of over 6000° F. Build a small surface



grinder having a 6"x6" table.

You get plans for a universal lathe attachment that the author claims is good for surface grinding, indexing, shaping, planing and milling. Build yourself a one-lung one horsepower overhead valve gas engine from scratch.

And you get plans for a 24" Tesla coil, parts of which have been reprinted many times over the years, including in our own "Tesla Coil Secrets". Here, you get every word and every drawing. Nothing has been left out.

We can't tell how many of these plans were actually built and proven. At the very least, they'll give you many new ideas. This is detailed how-to from magazines published from September 1918 to February 1926.

It has been long, difficult, and expensive process to accumulate this information. And although you may never get your hands on the originals, at least you can get the plans they contained. Any builder will find this fascinating reading. Get a copy. 8

1/2 x 11 booklet 22 pages Cat. no. 848



nate plants and animals as well. No doubt the oscillator works and is an interesting piece of

cer, arthritis, and other "hopeless"

diseases, but that it could rejuve-

Hilling s.e.s.r.

ACCEPTANT FOR T COLI

2000022 equipment, but I wouldn't stake my heath or anyone else's on it. Quack medicine machines were everywhere in the 1920's & 30's. This could well be another.

In this typewritten report you get historical details, wiring diagrams, construction tips, articles on waves that heal, "docu-

mented" cases of cure, reprints of the Lakhovsky patents, and a series of reprined magazine articles on the use of radio frequency waves to cure disease.

Modern physicians have found that electrical fields can speed healing of wounds in some instances. Perhaps this material has some merit, or perhaps it's all a hoax. Maybe it's another suppressed invention. You figure it out. You'll find it interesting reading - a very unusual collection of material. Get a copy. 8 1/2 x 11 spiral bound 156 pages

Cat. no. 357 \$15.95

\$5.95



Electrical Instrument | EDISON Making for Amateurs

Build Unusual Electrical Equipment from 1888!

ELECTRICAL INSTRUMENT-MAKING for Amateurs

by S. R. Bottone

reprinted by Lindsay Publications Inc.

The words "electrical instruments" bring to mind test equipment: meters, signal generators, and oscilloscopes. But back in 1888 when this volume first hit the bookstores, electrical instruments could be anything from simple Levden Jar capacitors and static electricity machines to dynamos and telephones, as well as ammeters, voltmeter and galvanometers.

With this as your guide you can go back a hundred years and imagine what it must have been like to be experimenting right at the cutting edge of technology. You can build your own batteries from scratch, use them to run a shocking coil while you monitor the current draw with homemade meters!

You get basic information on materials, soldering, and working glass. Then you build pith ball and gold leaf electroscopes, a Coulomb torsion balance, and Volta's electrophorus static generator. You'll learn how to take a sheet of glass and cut a circle from it, drill a hole in the center and use it to build Bertsch's high-voltage static generator, Carre's Dielectric machine, a Holtz machine, and a Wimshurst influence machine. Any one of these machines is powerful enough to shock the underwear off Aunt Annabelle! And you get info on building a Leyden Jar, Franklin plates, and a microFarad condenser.

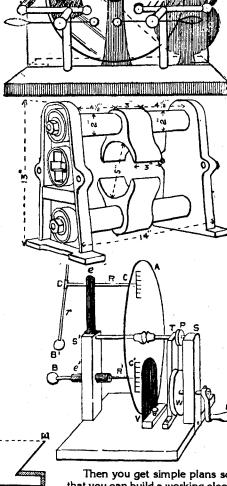
Next come the devices that use current electricity. You'll learn how to build a medical

coil that produces a 1/2" spark, or if you care to make a simple modification you can get 1" spark, in which case the machine is called an induction coil. With a powerful magnet you can make a shocking machine which appears to be little more than a simple mag-

neto. Then you build a uni-direction current machine (a motor), a dynamo, an ammeter, a voltmeter, a galvanometer, and a thermopile that produces electricity directly from heat.

You'll be shown how to build batteries, a single fluid cell, a double fluid cell, and using these two basic configurations how to

create powerful batteries using chemicals from zinc chloride and sulphuric acid to sal ammoniac and potassium dichromate which are more commonly known as the Daniell, Bunsen, Smee, Walker cells and others.



Then you get simple plans so that you can build a working electrical telephone, the newest rage a hundred years ago. And finally you get a couple of appendices that add additional information on galvanometers and batteries.

Obviously so many topics are covered in such a small book that

the number pages devoted to each topic are necessarily limited. Any one topic could really be expanded into a book of its own. But even so, you get enough useful information to build working equipment. The illustrations are primitive by today's standards, but are very informative nonetheless.

This is a fascinating book you're sure to enjoy. Lot's of valuable information at a price far below what you would have to pay for a now-rare original copy. With this book you can go back and rediscover the world of electricity. Get a copy. You'll really like it. 5x7 paperback 183 pages

Cat. no. 4929



Edison- A Biography by Mathew Josephson

Edison- the inventor's inventor. Everyone has heard of him. But are all the wild stories we've heard really true? What kind of

a quy was he?

Edison never really attended school. He was taught by his mother, and his father was a strange man. Edison's first adult job was as a telegrapher which later led him to invent repeater relays, automatic telegraphs, circuits for sending several different telegraphs in different directions over the same wire, and on and on. He even got himself in the middle of a bitter fight between the robber baron Jay Gould and the Western Union monopoly—talk about dirty pool!

To get away from New York, Edison built a lab in Menlo Park, New Jersey. And for ten years excited the world with new inventions from the phonograph and electric light to the electric locomotives and even parts of the telephone (Alexander Graham Bell beat Edison to the patent office by just days.)

By the time Edison went back to New York to build the electric system, he was already a millionaire (at 28). Then came a new lab in West Orange, a second wife (after his first died), moving pictures, an ore separator, an alkaline battery and much more.

Here's the inside scoop on the man who is considered the first professional inventor. You'll find that Edison didn't have time to pursue all his ideas, and that there are probably ideas and inventions waiting to be resurrected somewhere in the more than 1000 patents Edison held.

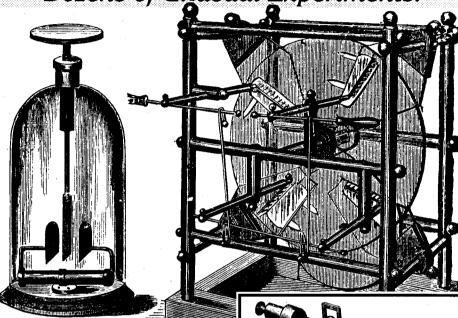
Read about this incredible guy. Edison's wife finally put her foot down when the inventor turned 75 and told him he has to work fewer hours - so he cut back to 16 hours a day!

Get a copy of this. If you enjoy technology, inventing, collecting, or just about anything you see in this catalog, you should find this biography quite interesting. It's a little slow reading in places, but it's loaded with details that will tell you the truth about what happened and why. After you read this, you can better appreciate who Edison was and why this country and the world is the way it is today. Excellent book. Quite reasonably priced. 6 x 9 paperback 512 pages with photos

Cat. no. 727 \$10.95

STATIC ELECTRICITY!

Unusual High Voltage Equipment! Dozens of Unusual Experiments!



STATIC ELECTRICITY

by J. H. Pepper

reprinted by Lindsay Publications

Static electricity is a nuisance when you walk across a carpet and then watch a blue flame jump out from a doorknob to bum off the end of your finger. But this kind of electricity can also be fascinating.

Back in the 1880's when people knew little about current electricity, static or frictional electricity was a scientific curiousity in laboratories and parlours. Giant lightning generators were built by amateurs and educators and bizarre experiments performed.

From Pepper's "Cyclopaedic Science Simplified" we've reprinted the chapter entitled "Electricity, Frictional or Statical", one of the best textbook discussions we've found yet.

You get a detailed discussion of electroscopes, 17 electroscope experiments, Cavallo's Cylinder Electrical Machine, the Royal Polytechnic Great Plate machine, Winter's electrical machine, the Holtz machine, the Electric Well experiment, experiments in induction, charge storage techniques, lengthy discussion of Leyden jars, the Leyden battery, followed by another thirty experiments including Cuthbertson's Balance Electrometer, the electric bomb, Harris's thundercloud needle, and a couple of machines for generating high voltage with a steam jet! And there is much more.

Everyone seems to be building electronic

devices with integrated circuits. No one seems to know about old time electricity. Here, in one volume are forgotten electrical devices, principles, and experiments. You'll find page after page of unusual information and illustrations.

Elliott's reflection

There are a lot old science textbooks available in old bookstores for little money. But a really a good discussion of static electricity like this one is hard to find.

Although this is not really a cookbook for building equipment, the wood engravings are quite detailed, and the text describes the equipment thoroughly enough that you could probably build the devices without great trouble. This is a great source for unusual science fair projects.

If you like to explore old scientific principles, build unusual apparatus, or just impress your friends, consider a copy of this unusual book. I think you'll like it. 5 1/2 x 8 1/2 paperback 88 pages

Cat. no. 4783

\$5.95

SMALL MOTORS & Their Repair



FRACTIONAL HORSEPOWER MOTORS and REPAIR

by Gerald Schweitzer

When one of your shop motors fails, chances are this book can show you how to fix it. Fractional HP is loaded with top-rate illustrations, exploded views, wiring diagrams of the windings, starters, and protection devices found on almost all small motors.

You'll learn about induction motors, split-phase, capacitor, repulsion, shaded-pole, universal, and three-phase motors. Learn about testing, maintenance, control and protective devices. Covers simple repairs, but not rewinding procedures. Get a copy of this valuable reference book for your technical library today! 6 x 9 168 pages.

Cat. No. 32

\$13.50

AUTOPOWER

Classic 1935 text on automobile generator conversions & modifications!

AUTOPOWER - Automobile Generator Conversions and Modifications

bu S. W. Duncan

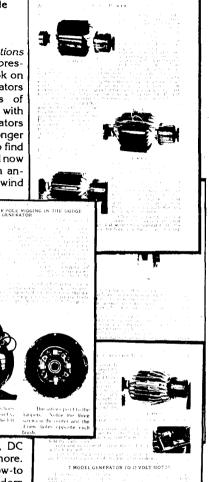
reprinted by Lindsay Publications From out of the Great Depression comes this unusual book on ways to make auto generators produce unusual amounts of power. The major problem with this book is that the generators being rewound are no longer available. Even if you were to find one of the units listed it would now be a hard-to-find part for an antique car. If you were to rewind

one of these antique generators, I'd personally drive over and "smack you 'long side the head!"

If that's the case, then why would I reprint something like this? Simple. The principles taught here can be ap-

plied to modern generators, DC motors, starter motors and more. You get detailed, practical how-to that can be adapted to modern needs. In other words, this is raw material for your brain. I can't quarantee your success, but I can guarantee that the info you find here is rare, and that you'll get your money's worth.

Chapters include changing a Ford Model A generator to a 110 volt alternator, get constant voltage at variable speed, converting a Dodge 12 volt generator into a 110 volt 500 watt alternator, changing a model T to 110 volt AC, making field and armature coils, changing a Delco generator to 110 Volt AC, the winding of automobile armatures, characteristics of DC generators, suggestions on mechanical construction of generators, figuring a new winding for an old frame, converting a farm light plant to 110 volt



AC, and a chapter of definitions. This is a heavily illustrated volume, wall-to-wall how-to.

Get a copy of this, It's great even if it is old. This is one of those manuals that people talk about having seen years ago, but can no longer find. It's worth having a copy just for reference. Order a copy today. 5 1/2 x 8 1/2 paperback 56 pages \$4.95 Cat. no. 4791

Home Mechanics

Great collection of old-time projects! ...from steam power to radio!

HOME MECHANICS

edited by Archibald Williams

Try your hand at a these World War I vintage projects!

Nineteen chapters with 214 illustrations will show you how to build a workbench, an astronomical telescope, a heliograph for signalling, a model steam turbine, an electrical resistance box, a home-made galvanometer (electrical meter), a Wheatstone bridge (electrical test equipment), a simple electric motor, a model railway electric signal, a pneu-

matic sprayer, a force pump for liquids, a windmill for pumping, model aeroplanes, a model gyroscopic railway, an X-ray machine powered by a Whimshurst machine, a kaleidoscope, and more.

Learn about fretwork, overlaying in wood, metals, xylonite, and more. You'll even learn how to build a sparkgap wireless transmitter which would probably get you put in jail if you were to really put it on the air!

You'll find the models are generally not all that complex, yet they really work. Even if you don't build the models exactly as described, you'll at least get great ideas adaptable to other uses.

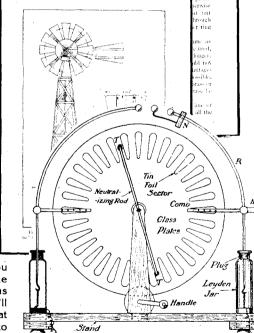
A great little book of projects. One of the better collections I've seen. I think you'll like it. Order a copy today. 4 1/4 x 6 paperback 297 pages Cat. no. 4805

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them by harmoring them on what is intended to be then concave side. The end holes to take the servers or mus which attach them to the framework should be a rather bose fit to permit debrate man adjustment by tapping before the even or not is tightened up

hard

The Framework.—The wooden framework shown in plan in Fig. 41, a, and in obviation in Fig. 44, b, best demands attention. Poplar or American whitewood is a very satisfable wood, being light, free from knots, casy to work. The actual manner in which the nework is constructed is immaterial, so long as dimensions are retained and the fram

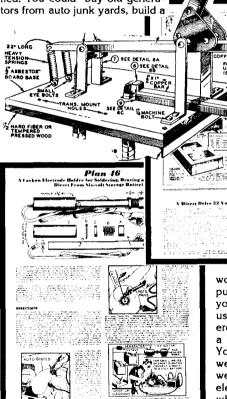


Manual

LeJay Manual - 1945 Edition by Lawrence D. Leach

reprinted by Lindsay Publications Beginning in the 1930's the LeJay Mfg Co in Minneapolis began publishing a booklet of plans for unusual electrical projects. As new editions came out, new plans were added until by 1945 there were 50 separate "chapters".

As you can see from the contents, most of the articles deal with the conversion with nowantique auto generators into 110 volt alternators, other voltage generators and motors. A lot of this info was used in areas of the country that hadn't been electrified. You could buy old genera-



worth the entire price of the publication. For instance, you can build a small but useful spot welder powered by nothing more than a string of auto batteries. You get plans for an arc welder, a transformer spot welder, a carbon-arc torch, electric bicycle, a water wheel, windmills and more. And they're all well illustrated.

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This is a manual worth having in your reference library. You may not be able to use all of the information, but you'll get so many ideas even from those chapters you can't use, that you'll find this manual to be worth many times its retail price.

Great ideas. Fun to read. Useful projects. Worth having. Order a copyl 8 1/2 x 11 booklet 32 pages

Cat. no. 20013

\$5.95

Contents

- 1 Plans for 110 Volt AC Light Plant made from Ford Model "T" Generator
- 200 Watt AC Generator for Automobile Made from Ford Model "A" Powerhouse
- A 6 Volt Slow Speed Generator (with plans for all-metal windmill)
- 6 Volt & 12 Volt Slow Speed Generators from Dodge "G" or "GA" Northeast Generator also from other Generators
- A 32 volt slow speed wind light Plant Generator One 32 Volt Motor, One 110 Volt Motor, One 32 Volt Generator, One 110 Volt Generator from Dodge Generator
- How to Make a Grinder, Series Motor, Constant Speed Motor, A Universal AC or DC Motor and a Soldering Iron
- A 75 to 110 Ampere Arc Welder Made from Dodge "G" or "GA" Generator. Also Dual Welders.
- Pendulum Type Fence Controller made from Ford "T" Coil
- 10 Plans for Building a Complete Wind Light Plant Including Tower, Propeller and Generator Charger
- 11 A 110 Volt AC Light Plant Generator 12 A "B" Eliminator For Your Battery Operated Radio
- 13 An Automobile Generator Booster Control
- 14 A 6 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- 15 A 32 Volt Constant Speed Generator made from Ford "T" Generator
- 16 A 2 Volt Slow Speed Generator from Standard 14 Slot 28 Bar Generator
- 17 How to Convert A 6 Volt Cut-Out for 2 Volt Operation
- 18 Directions for Repairing Your Own Batteries
- 19 A Water Wheel Made from Old Automobile Wheel
- 20 An Electric Outboard Motor from Old Ford "T" Generator
- 21 A Gas Engine or Motor Driven Generator with Drawings in Detail

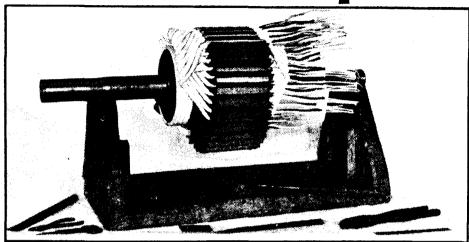
- 22 An Armature Growler for Testing Auto or Slow Speed Armatures 23 Two 32 Volt Series Motors from Dodge "G" or "GA" Generator 24 A 32 Volt Heavy Duty Motor made from Dodge "G" or "GA" Generator
- 25 A Bench or Breast Drill for 6, 12, or 32 Volts from "T" Generator
- 26 A 6 Volt Motor for Drill Press, Washing Machines, etc. made from Model "T" Generator
- 27 One 12 volt Motor and One 32 volt Motor Made from Model "T" Generator
- 28 Two 6 Volt Generators from the Dodge, also general information 29 A 110 V. or 220 VAC Portable Transformer for Arc Welding
- 30 A 110 Volt Spot Welder 1 Kw. Input Normal Draw 10 to 11
- 31 A Driect Drive 32 Volt Wind Plant All Metal Construction
- 32 A Battery Spot Welder
- 33 Armature Diagrams for Autolite, Bosch-Autolite and Bosch Generators
- 34 Armature Diagrams for Delco, Delco-Remy, & Remy Generators
- 35 Armature Diagrams for Ford A, B and V8 Generators
- 36 Armature Diagrams for Northeast Generators
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- 43 Two Types 110 Volt AC Insect Exterminators
- 44 An Electric Scooter Using a 6 or 12 volt Battery for Power 45 An Electric "Go Bike" Using a 6 or 12 volt Battery for Power
- 46 A Carbon Electrode Holder for Soldering, Brazing and Light Welding Direct from Six-volt Storage Batteries
- 47 Ball Type Fence Controller Made from Ford "T" Coil
- 48 110 Volt AC 500 Watt Self Excited Generator from Dodge Model
- "G" or "GA" generator 49 110 Volt AC 60 Cycle 1/2 HP Synchronous Motor from Dodge Model "G" or "GA" Generator
- 50 An AC Welding Transformer Using Dodge Generator Coils AppendixWindpower Information, Definitions, etc.

windmill, repair old auto batteries, use the electricity generated to power homebuilt motors, welders and so on.

Most of the information in this booklet is now of limited value simply because you can't get the generators listed. But rewinding data, hints and tips provided can help you in other rewinding projects for other types of generators.

There ARE several projects in this booklet any one of which is

Armature Winding Alternator and Motor Repair! Secrets!



Classic 1920 Text!

ARMATURE WINDING AND MOTOR REPAIR

by Daniel H. Braymer

From 1920 comes this motor rewinding book loaded with drawings and photographs that will show you how to build both AC and DC machines.

Chapters include: DC machines, AC machines, shop methods of rewinding DC armatures, making commutator connections, test-

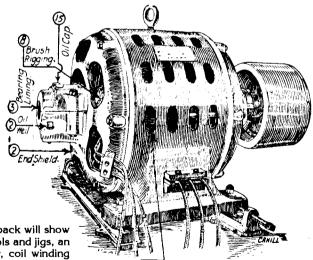
ing DC armature windings, operations before and after winding DC armatures, insulating coils and slots for winding, shop methods for rewinding AC machines, testing induction motor windings for mistakes and faults, adapting DC motors to changed operating conditions, practical ways for reconnecting induction motors, commutator repairs, adjusting brushes and correcting brush troubles, inspection and repair of motor starters and generators, diagnosis of troubles, methods to solve special troubles, tables and more.

One special chapter at the back will show you how to build the special tools and jigs, an armature sling, a pinion puller, coil winding machine, a coil taping machine, commutator slotter, armature banding machine and more.

The motors described are large types used in factories. But the principles apply to the smaller motors you and I use. You'll learn how to reconnect induction motors for different voltages and phases, how to operate a DC motor as a generator and visa-versa, change the DC motor windings for different voltages, and more.

You'll be taught all the techniques from removing old windings and cleaning slots, to winding the coils, insulating the end connections, inserting the coils, painting the windings, relining split bearings, and much more. You get data on all types of wave and lap windings, varnishing and insulating materials, and much

I make you no promises, but this is the logical place to start should you want to rewind a motor to particular voltage, wind a generator or alternator for use with a windmill or water-

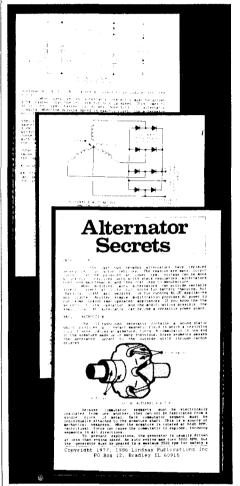


wheel, rewinding a big generator for use as a welder, modify a DC motor for use in an electric car, and so on.

This is a beautiful book. You get over 500 pages of clearly written, wall-to-wall practical how-to with excellent illustrations. This is as good as, and in most cases, is much better than, any motor book I've carried in the past, regardless of price. It's a gem that should be in the reference library of most "machine freaks" (that includes you, son). Order one as soon as you can. 5 1/2 x 8 1/2 paperback 540 pages

Cat. no. 4384

Get surprising amounts of power from a common auto alternator!



ALTERNATOR SECRETS 2nd Ed

If you know the secrets of modification, you can get large amounts of power from a common auto alternator. You can build a portable powerplant driven by a gasoline engine to run brush-type power tools, lights, and AC-DC appliances at remote locations. You can hotcharge storage batteries, or even do light arc welding. Operation of the regulator is explained so that you can build a custom regulator, if needed, to provide regulated output voltages other than 12.

Learn how you can make almost an ordinary induction motor (like an old washing machine motor) put out 120 volts at 60 cycles without rewinding or internal rewiring. These secrets are worth the price of the booklet

We've jammed a ton of information into 16 pages with small type to keep printing costs down so that we can keep the retail price the same as the old edition. Valuable, rare info! Get a copy. 5 1/2 x 8 1/2 booklet 16 pages Cat. no. 80 \$3.00

\$16.95

ELECTRICAL DESIGNS

Articles from American Electrician Magazine reprinted by Lindsay Publications

By 1901 people were getting tired of shocking the cat. They realized that electricity was more than a novelty, and that it could be put to use doing heavy work. But electric motors were scarce and very expensive. It's no wonder that half of the pages in this book are devoted to building and winding motors.

As interesting and useful as motor plans are to some people, the beauty of this volume are the plans in the back half. You'll learn how to build rheostats, reactive coils, ammeters, volmeters, a simple wattmeter, and a galvanometer.

Build a storage battery, a Bunsen photometer to measure the candlepower of light bulbs, an arc lamp, and a Nemst lamp. Build a telephone, a dry cell, and handy tools for working on motor commutators.

If you're into high voltage, you'll find useful plans for

an induction coil, a Tesla-Thompson coil, a high voltage condenser for use with Tesla coils. and a powerful Wimshurst machine.

Every article is illustrated, and most drawings are dimensioned. The text is brief and to the point, but it should provide more than enough information for you to complete the project.

It doesn't matter whether you're in-

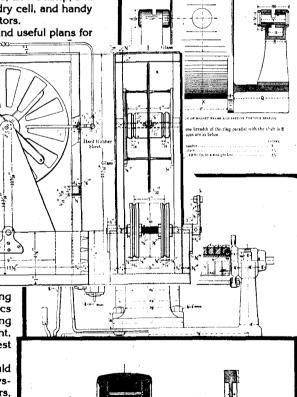
terested in collecting ideas for winding modern working motors from the specs and instructions here, or if you're trying to build early exotic test equipment. You'll find something here to interest

With plenty of hard work you could probably build an entire electrical system: alternator, transformer, motors, rectifier, storage battery, lamps, telephone without having to buy any commercial parts other than wire! Think about it. Your friends would call you a modem day Thomas Edison!

Great ideas. Unusual plans. Plenty to keep your mind and hands busy. Get a copy of this! It's worth having! Order today. 5 1/2 x 11 paperback 262 pages Cat. no. 4228

34 Projects! From motors to Tesla Coils!

THREE HORSE-PONTER VOTOR



You Get Plans for:

- one-sixth horsepower motor with drum armature
- one-sixth horsepower motor with ring armature
- one-fourth horsepower motor with drum armature
- one-fourth horsepower motor with ring armature
- one-half horsepower motor with drum armature
- •one horsepower bipolar motor with drum armature
- one horsepower four polar motor with drum armature
- •two horsepower four polar motor with drum armature
- •three horsepower motor with drum armature
- •one kilowatt combined AC & DC machine
- •two kilowatt combined AC & DC machine
- •four kilowatt combined AC & DC machine
- single phase rectifier
- universal alternator for laboratory purposes
- one-quarter horsepower induction motor
- simple transformer in four sizes
- contruction of a reactive coil
- construction and calculation of rheostats
- •simple voltmeters, ammeters, wattmeters
- •d'Arsonval galvanometer
- sensitive mirror galvanometer
- Thomson Astatic Galvanome-
- cheap testing set
- ·construction and use of a pho-
- construction of a simple storage battery
- construction of a constant potential arc lamp
- •an experimental Nemst lamp
- construction of an induction
- construction of a Tesla-Thomson high frequency coil
- condenser for extremely high potentials
- construction of a Wimshurst influence machine
- •telephone transmitter and receiver
- construction of a dry battery cell
- some handy commutator tool

Procedures in EXPERIMENTAL AND ENTERNATION Horseshoe magnet to "blow"

Procedures in EXPERIMENTAL PHYSICS

by John Stong

reprinted by Lindsay Publications

If you consider yourself an experimenter, an inventor, or a builder of unusual machines and equipment, you must have a copy of this fantastic classic text. No two ways about it.

You'll find wall-to-wall practical how-to and incredible illustrations on almost every one of the more than 600 pages. Chapters include: laboratory glass blowing, laboratory optical work, technique of high vacuum, coating of surfaces by evaporation and sputtering, the use of fused silica, electrometers and electroscopes, geiger counters, vacuum thermopiles and the measurement of radiant energy, optics, photoelectric cells and amplifiers, photography in the lab, heat and high temperature, notes on the materials of research, notes on the construction and design of instruments and apparatus, and molding and casting.

This is some incredible stuffl Learn how to blow glass and make aspirators, distillation condensors, and so on. Learn how to seal copper to glass so that you can imbed electrodes. This could be handy for trying to make light bulbs, vacuum tubes, or x-ray

tubes maybe.

Learn how to rough cut lens blanks from large plates of glass and then grind them into lenses on your homebuilt lens grinder. Learn how to make a parabolic telescope mirror using the standard techniques. Learn to make unusual equipment to test the finished mirror. Learn how to grind a Schmidt lens.

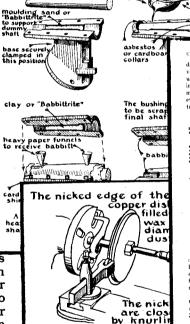
To create high vacuum you'll read about roughing pumps, the vapor pressure of waxes, getters for creating the highest vacuums, and learn to make a variety of diffusion pumps using mercury and oil. See charcoal traps, kinetic vacuum systems, vacuum gauges of all types. Remember, all this comes with construction details.

Learn how to silver mirrors with a

variety of methods including vacuum sputtering. You'll find extensive details on the evaporation technique for aluminum.

Fused quartz is valuable because

Incredible laboratory processes revealed!



with a smooth steel rolle

dummy shaft of steel

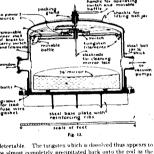
Control PAPORATION AND SPUTTERING 174 diffused into the tungsten. However, extended heating in vacuum at a very high temperature decreased the weight, until, within the experimental error, it became the same as in the beginning. A chemical analysis of the condensed metal film was made to test whether or not tungsten is exponented. The analysis gave no definite indication of tungsten. A concentration of 0.08 per cent by weight was headed for overstanding the production of the

Sil-O-Cel

brick

sheet

iron



detectable. The tungsten which is dissolved thus appears to be almost completely precipitated back onto the cod as the evaporation proceeds. Although it may not be deposited back in exactly the same place, it does compensate in a large measure for the decrease in diameter of the tungsten wire. The arrangement used at first for administing mirrors at the California Institute of Technology is shown in Figs. 11 and 12. It is in the form of a belix, consisting of 10 turns of 30-mil tungsten wire, \hat{p}_i of an inch in diameter and pitched

trometer, a Hoffman electrometer, and others useful for x-ray and cosmic ray work. Build a Geiger counter. You can build your own Geiger-Mueller tube if you master the high-vacuum technique taught earlier. Unfortunately, most of the electronics described is based on vacuum tubes of fifty years ago rather than on transistors.

arc into crucible

adjusta-

carbon

holders

cooling

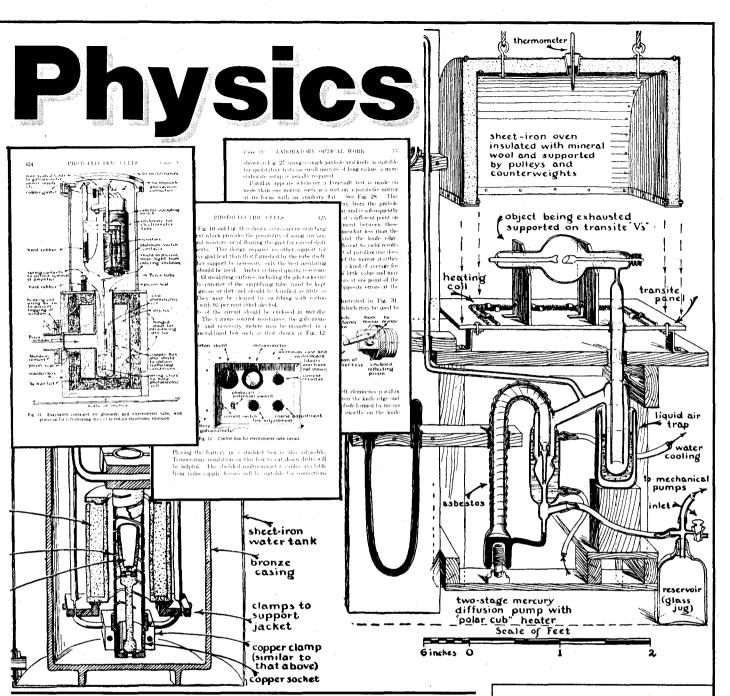
ROBATORY OPTICAL WORK

ble

Build vacuum thermopiles that measure infrared, visible light and ultra-violet so accurately that they can be used to calibrate photographic lightme-

unlike glass it can withstand extreme temperature changes without shattering. Learn how to build micromanipulors and all the rest of the equipment to produce tiny fibers that can be used for suspending the elements of an electrometer, for cross hairs in optical instruments, or for building a balance. The microbalance shown is supposed to be sensitive down to a billionth of a gram per division!

And there's so much more! Build a Comption adjustable quadrant elec-



Wall to wall how-to!

ters and such. You've heard of carbon arc lights, but do you know how to build *iron* arc lights? Or low pressure mercury arc lights? And others? You can even build a machine to measure the wavelength of colored light.

You'll find details on hydrogen furnaces, crucibles, burners, electric arc furnaces, and even a lab setup for making artificial rubies and sapphires! And there's much more - even down to what we consider the "easy stuff" like using a lathe and sand casting.

You should see by now that this is a fantastic book loaded with construction secrets for unusual equipment. And you should now understand how a book first published in 1938 went through a couple of dozen printings! It's a classic. It's incredible. You should have a copy for reference if nothing else. Highly recommended. Order a copy today.

5 1/2 x 8 1/2 sewn paperback 642 pages

Cat. no.4562

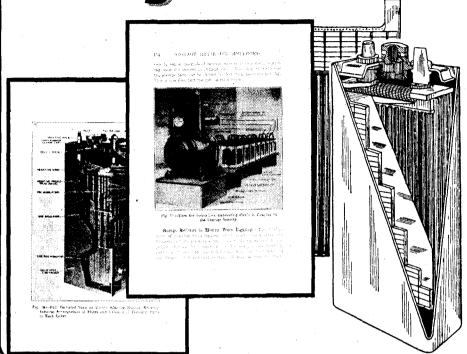
\$23.95

Something you should know....

This is no ordinary paperback book. "Experimental Physics" is printed on acid-free paper and is sewn like a hardcover book to prevent pages from falling out.

According to pricing formulas, it should sell for much more. If a book like this were released today by a certain major book publisher whose books I've carried from time to time, they would charge from \$45 to \$65 a copy. Maybe even more. At \$23.95 it's a steal. Get a copy.

Storage Batteries Simplified!



STORAGE BATTERIES SIMPLIFIED

by Victor Page

reprinted by Lindsay Publications

It's old, 1917 to be exact, but it's damed good. Modern storage batteries have plastic cases and plate separators, but in operation, performance, and maintenance batteries really haven't changed too much since this book was first published.

Five chapters cover simple lead plate batteries, Plante plates, pasted plates, Edison batteries, details of plate construction, Gould plates, Exide plates, separator function and more. One whole chapter deals with battery defects, how to make electrolyte, dismantling and repairing batteries. You get full details on how to charge batteries, plus a chapter on their use covering auto starting and lighting, electric autos, railroad use, street cars, mines and even WWI submarines!

I don't think the battery repair instructions will be very useful with modern batteries, and I wouldn't even try to build some of the battery chargers described. Neverthless, there is so much excellent material here that I give it high marks. Loaded with photographs, drawings and charts. 5 1/2 x 8 1/2 paperback 220 pages Cat. no. 4473

Lead-Acid Batteries & How They Work!

SECRETS OF LEAD-ACID BATTERIES

To get the most out of lead-acid cells whether you used them in your auto, an electric car, an alternate energy system or other application, you should know what's in this jampacked booklet.

You'll learn how batteries are rated, built, the different types of charging, how they discharge and why the fail. Learn to quick charge, equalize cells, and even perform a "rejuvena-

tion" treatment that helps some "sick" batteries. Testing of used batteries and electric auto applications are also discussed..

This is much more than basic information but without heavy mathematics and chemistry. Get a copy! 5 1/2 x 8 1/2 booklet 44 pages

SECRETS OF Lead-Acid Batteries

Convert DC into 110 Volt 60 Cycle AC!

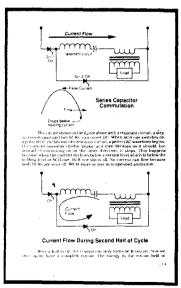
POWER INVERTER TECHNOLOGY

You can convert 12 volts DC into 120 volts AC 60 cycle with an electronic inverter. If you're intending to invest in an inverter, there's more to know that just its cost and power rating. Do you know what type of design it is? Can it handle high power factors without blowing the transistors or SCRs? Can it lock to the local power grid?

Learn about these problems and much more in this popular jam-packed technical report. Learn about transistors, SCRs, series and parallel commutation, waveform filters, back current flow, and much more. You'll get reports on several commercial inverters, names and addresses of a variety of manufacturers, and sources for free plans should you want to attempt building an inverter.

Other books on the market are either childishly simple or incredibly complex. This is in between, being a translation into layman's terms of the concepts in complex engineering texts. This is not a how-to text. This is an education. You'll learn how to spend your money

wisely and get the most from an inverter. Rare info. Reasonably priced! Get a copy. 5 1/2 x 8 1/2 24 pages 2nd edition \$5.00 Cat. no. 83 \$4.00



Cat. no. 86

Build a Dynamo!

DYNAMO BUILDING FOR AMATEURS

by A. J. Weed

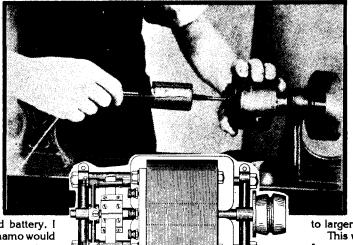
reprinted by Lindsay Publications "A practical treatise showing the construction and winding of an experimental fifty watt dynamo. Illustrated by sixty-four original engravings showing the actual work in progress.'

It's only a fifty-watt dynamo which is not a lot of power, but this book is worth having. Although the author doesn't specify DC output in amps and volts, he does say that when used as a motor, it will generate 1/12 hp when connected to a 5 cell battery which

would be 11 volts for a lead-acid battery. I would imagine the output of the dynamo would be about 12 volts as just over 4 amps.

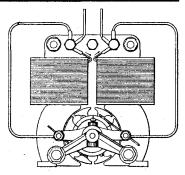
Chapters include: side-bearing rods, field punchings, bearings, commutator, pulley, brush holders, connection board, armature shaft, armature, armature winding, field winding, connecting and starting.

The project is based on field punchings that were available as a kit when the book was released in 1910. I would think that if you're at all



creative, you can find an old motor or generator and salvage field and armature punchings from it. Electrical steel is easy to get these

You can use this book as an intro into building generators and/or motors. You will be



shown everything from dimension drawings to winding procedures to turning the commutator in a lathe. Once you've built this, you can jump

to larger machines.

This would be a great dynamo to be driven from a small steam engine. Use it to charge a storage battery out in the wilderness. I'm sure you'll have your own unique application. Interesting project. Rare information. By one of the authors of "Gas Engine Construction".

Inexpensive. Get a copyl 5 1/2 x 8 1/2 paperback 86 pages photos & drawings

Cat. no. 4171

\$5.95

Old Time Electrical Projects!

PRACTICAL PROBLEMS IN **ELECTRICAL CONSTRUCTION**

by Perry & Buck

reprinted by Lindsay Publications

From out of the year 1928 comes this small book of electrical projects. Like so many other books in this catalog, you'll find that projects are somewhat out of date but the information and construction techniques revealed are no longer taught. And although you might not want to exactly duplicate a project, you can certainly use the skills taught.

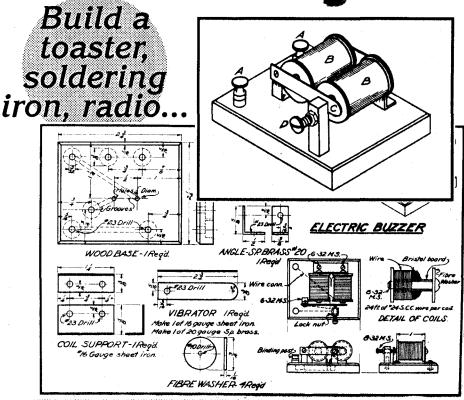
The projects include a medical coil (induction coil for quack medicine), buzzer, lamp, rheostat, sign flasher, electric toaster, two different electric heaters, soldering iron, crystal radio, 110 to low voltage transformer, Tungar rectifier, Duram one-tube regenerative receiver, and a four chapter series on building

an electric motor.

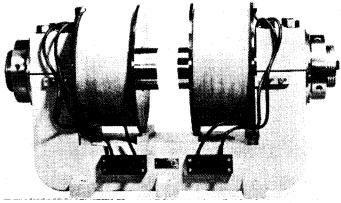
The biggest criticism I have is that the descriptions are too brief. You're expected to have some experience as a mechanic because these are more or less advanced projects. Great info on nichrome wire and its use in building electrical heating devices. An fascinating regen receiver, too. An interesting book with unusual projects. Low-cost. Get a copy. It's worth having.

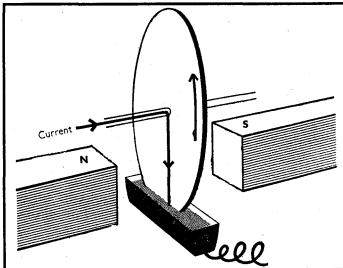
5 1/2 x 8 1/2 paperback 72 pages Cat. no. 4767

\$4.50



Introduction to MAGNETISM





MAGNETISM — An Introductory Survey by E. W. Lee

The back cover of this book explains it all very well...

"The lodestone was known to the ancient Greeks; the Chinese knew of the compass a thousand years ago; in the 16th century Gilbert described magnetic poles. Professor Lee takes us through the early experiments to the first modern accomplishments of Oersted, Ampere and Faraday. We then learn the principles behind electric motors, dynamos, transformers, permanent magnets, synchrotrons, solenoids, memory banks in computers, betatrons, magnetic supercooling, and other modern applications....

'The author shows us how magnetism 'works,' with reference to such concepts and principles as lines of force; ferromagnetism; the atomic theory of matter in relation to electromagnetic properties; paramagnetism and diamagnetism; quantitative measurement of magnetic force; domains and domain boundaries; high-permeability alloys, their theoretical basis and uses; magnetic matrices used as computer-age storage devices; ferromagnetism and antiferromagnetism; the use of magnetism in modern scientific research; and problems of the earth's magnetism, including its meaning to Wegener theory of continental drift and solar phenomena."

You get 60 diagrams and sketches and more than 32 pages of photographs. If you want to explore the theory, you can study the mathematics that explains magnetism.

This is one heck of a lot of book for the money. And it's must reading for basement engineers, experimenters, even the guy who's trying to build a magnetic motor or perpetual motion machine. Great background information. Order a copy. 5 1/2 x 8 1/2 paperback 281 pages Cat. no. 365

Great Electricity Text!

ELECTRICITY 1-7

edited by Harry Mileaf

Find Electronics 1-7 in this catalog and read what we have to say about it. You'll know in an instant why we offer this companion book. It's every bit as goodl

If you need a good solid understanding of electricity, the most basic electrical elements and how they work, then you should have this.

In this single hardcover volume you get the original seven paperback books produced to teach electricity in schools. The volumes cover basic concepts; resistance and Ohm's law; AC components such as capacitors, inductances, and transformers; solving problems in AC circuits such as LC, RC, and LCR arrangements; test equipment; power sources including primary & secondary batteries and generators and alternators; and finally AC & DC motors.

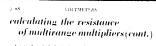
Every chapter is heavily illustrated and text is detailed, easy-to read and understand and thorough. Not all books can claim that!

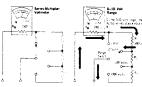
This is an essential book for every electrician and for any one who needs a solid footing in electrical theory before advancing to the study of electron-

Excellently written. I've offered this book off and on for years. It's great. Highly recom-



counterelectromotive force





R₁₀₇ = E_{wax} I_w = 10 volts o 0:11 ampere - 10 000 ohm

Top Quality!

mended. Expensive, but it certainly delivers.

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Just a few of the topics covered:

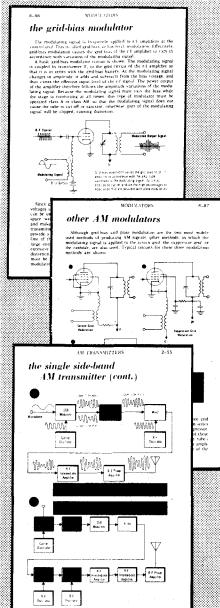
electrical charges electron theory current magnetism electric circuits resistance resistors power Ohm's law series circuits parallel circuits serie-parallel circuits tuned circuits Thevenin's Theorem filter circuits Kirchoff's Laws DC circuit failures alternating current AC waveforms resistance AC circuits inductance inductive DC circuits ohmmeters

inductive AC circuits the megger

transformers capacitors capacitive AC circuits power factor capacitor types vectors RL circuits RC circuits LC circuits LRC circuits impedance matching meter construction rectifier meters meter calibration and AC & DC motors accuracy ammeters voltmeters

power meters dry cells storage batteries alkaline cells battery characteristics DC generators field windings armature windings DC generator construction AC generators output phases auto alternators motor-generators dynamotors motor construction motor classifications compound motors and on, and on, and

Incredible (You'll find almost) Electronics Textbook!



ELECTRONICS 1-7 2nd Edition edited by Harry Mileaf

I've seen a thousand electronics books from the oldest to the newest, and in my opinion, this one of the very best I've seen. If you're new to electronics or just need a great reference for those areas in which your knowledge is weak, then this book is for you.

What I like is the simply written, yet detailed and complete text and the clear informative illustrations that drive home the lessons being taught. Some books race through complex topics and don't really explain themselves.

everything!

DC signals AC signals modulation side bands side-band modulation AM FΜ pulse modulation multiplexing television stereo FM navigation signals facsimile mixing frequencies waveshaping harmonics power supplies amplifiers modulators demodulators limiter separator AFC circuits AGC circuits counters gates traps feedback circuits AM transmitters & rcvrs FM transimtters & rcvrs **UHF** rcvrs RDF finders vacuum tubes diodes triodes triode operation load lines bias tetrodes

pentodes phototubes

magnetrons klystrons semiconductor the-PN diode junction capacitance zener diodes tunnel diodes junction transistors gain transistor circuits bias & stabilization oscillation frequency response thyristors field-effect transistors FET circuits integrated circuits rectifiers filters load resistors voltage dividers voltage multipliers phase splitters RF amplifiers frequency-multipliers LC oscillators crystal oscillators RC sine-wave oscillators relaxation oscillators mixers converters discriminators gating circuits counters circuits limiter circuits antennas and much, much

Not here! The authors take their time and really

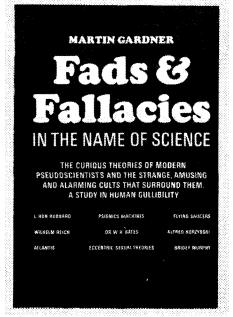
MUCH more!

Originally, this book was issued as seven paperbacks, no doubt for schools. Here you get all seven books in a single hardcover volume. Yes, it's expensive, but it's cheaper than buying the individual volumes, and you definitely get your money's worth. The table of contents alone, is eighteen pages long!

This is not a how-to projects book. This is a textbook that teaches the electronic principles behind the equipment you buy and build. You'll learn the complex terms, how components work by themselves and together to build up complex systems.

Again, this one of the very best electronics course I've seen. If you need just one good electronics book then this is it. There are many other good ones on the market, but I'd put my money on this one any day. (I wish I had published it!) Great book. This should be on every electronics-buff's reference shelf. Order a copy! 6x9 hardcover almost 1000 pages wall-to-wall illustrations Cat. no. 363 \$42.95

Unusual Science **Beliefs** Attacked...



FADS & FALLACIES in the Name of Science by Martin Gardner

If you find "Fringe Science" impossible to believe, you'll find this book right down your alley. Gardner presents his views on "the curious theories of modern pseudoscientists and the strange, amusing and alarming cults that surround them. A study in human gullibility."

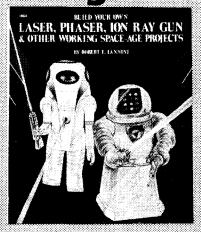
Gardner tears apart Symmes and his hollow earth theory, Velikovsky and wandering planets, the multiple moon theories of Horbiger & Bellamy, Charles Fort and the Fortean society, dowsing and other strange methods of finding natural resources, naturopathy, iridiagnosis, zone therapy, food fads, orgone sex energy by William Reich, L. Ron Hubbard and dianetics, Koryzbski and his General Semantics, Atlantis, flying saucers, and Bridey Murphy.

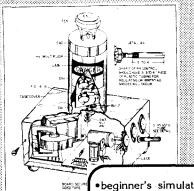
Gardner shoots them down, and many of them deserve it. But whether you agree with Gardner or not is immaterial. Here, you'll read about many strange ideas for the first time. You can read Gardner's point of view and then do your own research and decide whether you want to agree with him. What I especially like is the appendix that lists many unusual articles and books along with fascinating footnotes.

In other words, Gardner may attack something you really believe in, but in doing so might very well provide you with new directions for your own investigations.

No matter what side of the fence you're on, you'll enjoy this. Wall-to-wall unusual material. A lot of interesting book for the money. You can't afford NOT to have a copy. 5 1/2 x 8 1/2 paperback 363 pages Cat. no. 737 \$5.95

Strange Electronics Plans! WITCHES &





BUILD YOUR OWN LASER, PHASER, ION RAY GUN. . .

by Robert E. Lannini

Here's one of the most bizarre collections of how-to plans I have ever seen. You'll learn how to build high-power pulsed red ruby laser gun, high-power continuous IR CO2 Laser, ultrasonic field generator, programmable high-power ultrasonic generator, 250,000 volt Tesla coil, magnetic field distortion detector, solid-state Tesla coil, a variety of wireless "bugs", a super-sensitive parabolic microphone, electronic paralyzing device, battery charger and eliminator and much more.

Iannini is an experienced electronics inventor, and holds many patents. He'll give you parts lists, wiring diagrams, assembly diagrams and all you need to get these projects built. I don't think that it's any coincidence that almost every plan has a footnote telling you that kits are available from Information Unlimited, Inc., which is owned by the author and which advertises in the back of the science and mechanics magazines. No doubt, that firm's best selling plans have been reprinted in this single volume.

This book is expensive, but it delivers. I really like this, and I'm sure you will too. Order a copy, even if it has to sit for two years on the shelf before you get ready to build. Excellent book. 8 x 9 1/2 paperback 390 pages.

Cat. No. 346 \$15.95

•beginner's simulated la

- •visible red laser
- •pulsed laser rifle
- •ruby laser gun
- •CO2 laser
- ·laser light detector
- plain field generator
- phaser shock-wave pistol
- •ultrasonic generator
 •ultrasonic listening device
- •250 kv Tesla Coil
- •lon ray gun
- •magnetic field distortion detector
- •light-beam communicator
- •solid-state Tesla coil •infrared viewer
- •FM voice transmitter
- •long-range telephone xmtr
- parabolic microphone
- paralyzing device
- •wireless repeater xmtr •much, much morel

WITCHES & WITCH HUNTING



THE MALLEUS MALEFICARUM of Heinrich Kramer and James Sprenger translated by Rev Montague Summers

The copy from the back cover says it better than I can:

"For nearly three centuries Malleus Maleficarum (The Witches Hammer) was the professional manual for witch hunters. This work by two of the most famous Inquisitors of the age is still a document of the force that era's beliefs. Under a Bull of Pope Innocent VIII, Kramer and Sprenger exposed the heresy of those who did not believe in witches and set forth the proper order of the world with devils, witches, and will of God. Even if you do no believe in witchcraft, the world of 1484 did.

Contemporary cases illustrate methods by which withces attempt to control and subvert the world: How and why women roast their first-born male child: the confession of how to raise a tempest by a washwoman suspended 'hardly clear of the ground' by her thumbs; methods of making a formal pact with the Devil; how witches deprive men of their vital member; and many others. Methods of destroying and curing witchcraft, such as remedies against incubus and succubus devils, are exemplified and weighed by the authors.

Formal rules for initiating a process of justice are set down: how it should be conducted and the method of pronoucing sentence; when to use the trial by the red-hot iron; how the prosecutor should protect himself; how the body is to be shaved and searched for tokens and amulets, including those sewn under the skin....

Unabridged republications of the 1928 edition..."

If you believe in this sort of stuff, you'll find it scary, and I DO NOT RECOMMEND that you conduct a witchhunt in your neighborhood.

For the rest of us, this is really interesting reading. Flat out bizarre! This book makes every day of the year Halloween!

Get a copy of this. EVERY man should have a copy this so he can protect his vital member against witches. (Reminds me of one my old girlfriends. But that's another story....) Excellent book. Very unusual. Order a copy. 6 1/2 x 10 paperback 278 pages
Cat. no. 754 \$7.50

Giant Book of Projects!

Giant Book of EASY-TO-BUILD ELECTRONIC PROJECTS by the editors of

Elementary Electronics Magazine

You get get circuit diagrams, printed circuit board diagrams where needed, assembly diagrams, and instructions on how to build 84 different, simple, useful and fun circuits.

Some the projects you'll build are a light dimmer, telephone scrambler, power tool torque control, simple voltmeter, solar cell tester, square-wave generator, crystal set, shortwave converter, power supplies, alternator tester, tachometer, photo timer, lightmeter, electronic slot machine, electronic thermometer, Tesla coil, and much more.

A big book loaded with fun projects. A little on the expensive side, but lots of projects for the money. Worth while. Consider it.

7 1/2 x 9 1/2 paperback 346 pages heavily illustrated Cat. no. 349 \$17.95



The Strange Books of Charles Fort

Four Mysterious Books in One!

The Complete Books of CHARLES FORT

by Charles Fort

Strange! Very strange! A must book for anyone who researches unexplained phenomena. The dust jacket explains the book better than I can...

"Did beings from outer space visit earth in the past... are the various objects seen in the sky (flying saucers, in modern terminology) evidences of their visits?

"What is the explanation of falls of frogs, falls of fishes, falls of seashells, which have been recorded from time to time? Are they explainable in terms of selective tornadoes, or are they evidences of a planetary mechanism that we do not know?

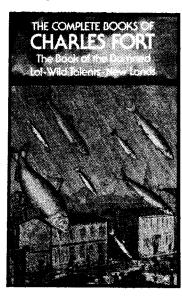
"How can we answer reports of strange animals, disappearances of men from open sight, curious structures in the snow, talents like teleportation and telekinesis?

"These are the 'damned,' by which the late Charles Fort meant all the wide range of mysteries that are ignored by orthodox science or explained away improperly.

'Charles Fort worked full time for twenty-seven years at the British Museum and the New York Public Library researching scientific journals, old periodicals, newspapers, and manuscript accounts to gather material on phenomena from the borderlands between science and fantasy. His researches appeared in four books. The Book of the Damned [1919], New Lands [1923], Lo! [1931], and Wild Talents [1932].

"In these four volumes Fort gathered together, organized and commented on a wild host of phenomena: flying saucers seen in the sky before the invention of aircraft, flying wheels, strange noises in the sky; correlations between volcanic activity and atmospheric phenomena; falls of red snow; falls of frogs, fishes, worms, shells, jellies; finding of 'thunderbolts'; discrepancies in the schedules of comets, sightings on Mars and the moon; infra-Mercurian planets; inexplicable footprints in snowfields; flat earth phenomena, disruptions of gravity; poltergeist phenomena; stigmata; surviving fossil animals; the Jersey devil; Kaspar Hauser;

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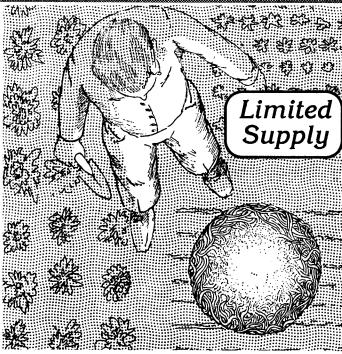
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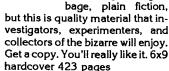
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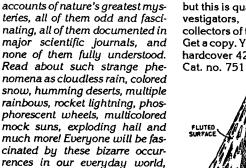


HANDBOOK OF UNUSUAL NATURAL PHENOMENA Eyewitness Accounts of Nature's Greatest Mysteries by William R Corliss

"This remarkable volume collects more than 500 eyewitness also reported by Fort, but there have been new occurrences reported after Fort's books were published by sources that should

You get a well illustrated, interesting. and flat out unusual collection of bizarre natural happenings written by a scientific author of thirty of other books. A lot of material in print these days is gar-





This book takes over where Charles Fort's books left off. Some of the unusual reports such as live fish falling from the sky are

proof that science has not yet been

able to explain everything around



Detailed structure of a conical hailstone

Ball Lightning

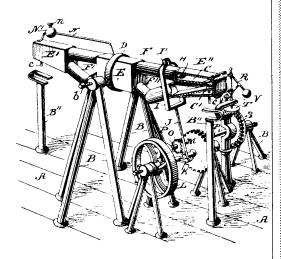
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Artist's sketch of the Bovina ice-encased turtle

us.

FIFTY Perpetual Motion Mechanisms



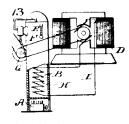
FIFTY PERPETUAL MOTION MECHANISMS

by Fred Dieterich

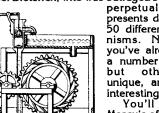
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The author was a patent attorney at the turn of the century. I suppose that so many people

considered themselves inventors and presented him with so many headaches that he wrote a book entitled "The Inventors Universal Eduator" covering the process of securing a patent. It sold for many years starting 1899.



One short section of his book covers perpetual motion inventions which are unpatentable. Dieterich, who was outraged by claims of



perpetual motion, presents drawings of 50 different mechanisms. No doubt, you've already seen a number of these, but others are unique, and all are interesting.

interesting.
You'll see the
Marquis of Worcester
wheel, the Horace

Wickham machine, the 1868 device of Dr. Drasch of Austria, an electric device, the self-moving railway, the Orfyreus 1720 wheel, a complicated water screw, and others.

complicated water screw, and others. If you're into PM, you'll want to add this to your collection. Maybe you're trying to build a machine and want to avoid previous failures. Or you're a skeptic and want a good laugh. Whatever, the material is interesting and the price is low. Get a copy. You'll like it. 8 1/2 x 5 1/2 booklet 22 pages
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ENIGMA FANTASTIQUE

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"Why was only a small portion of Dr. Tesla's work permitted to be used by world industry? What were the incredible SECRETS of mind control demonstrated by the life of Nikola Tesla? What do the mind-control secrets of Dr. Tesla and Dr. Rudolf Steiner have in common?..."

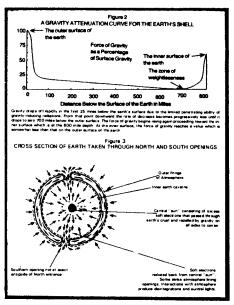
This is another of those strange "revealing" books that declare they have all the answers to why certain inventions, ideas and developments are being "suppressed." You can laugh at it, or take it seriously. Your choice.

Whatever your point of view, you should find it interesting. You get descriptions of Tesla's ideas of power transfer, Dr. Rudolf Steiner and his strange ideas, Atlantis, UFO's, and a bunch of other things.

Under no circumstances do I endorse any of this. I offer it only as entertainment, science-fiction, if you like. Although that's my opinion, you may be convinced that it's fact. You decide.

Spiral bound, 197 page typewritten book with poorly reproduced photos. 8 1/2 x 11 Cat. No. 724 \$10.00

Strange New Explanation of the Universe!



THE AWESOME LIFE FORCE

by Joseph H. Cater

The author is one of those people who claims that the government, the pentagon, NASA, the science community and others are suppressing knowledge and telling us lies, and that he alone has solved all of the mysteries. Although I find that hard to believe, some of his arguments are interesting.

Chapters include: undeniable discrepancies in conventional science, cause of tides, the hollow condition of the earth, closer look at the properties of light, popular misconceptions of atomic and particle physics, practical free energy devices, the Searl effect and related UFO phenomema, research of Von Reichenback, pyramid of life, resolving the mystery of teleportation, materializations from higher realms, origin and transference of disease, and much more.

The author claims that there are holes at the north and south pole that go to the center of the earth. They've been seen and photographed by astronauts but are suppressed by NASA because they can't be explained.

If you believe in this sort of thing, you'll love this book. If you're trained in the sciences, you'll find many of his arguments border on the ridiculous. But regardless of what side of the fence you're on, you WILL find this interesting reading. It's as far out as any book I've seen yet. 5 1/2 x 8 1/2 paperback 475 + pages

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THE PERPETUAL MOTION MYSTERY

by R. A. Ford

Perpetual motion. Some people laugh at it. Others take it very seriously. Here's a serious look at these unusual systems.

First, you get a reprint of the small and now-rare "Perpetual Motion Handbook Through Entropy Reversal" published in 1967 by I. R. Barrows. Then, you get his first (and last) four "Perpetual Motion Journals" published about the same time. Each is small but filled with letters patents, ideas, il-

lustrations, and thought-provoking suggestions.

The author jumps into a discussion of why perpetual motion might be possible, pointing out unusual theories from the past, and pointing out possible defects in current theories.

Covered are kinetic gravitational theories of the 18th century, DesCarte's Vortex Theory, LeSage's Impact Theory of Gravity, and Brush's Wave Theory. Attempts at experimental confirmation of these thories are then provided.

Natural gravitational anomolies such as solar eclipse, bulging river surfaces, bore at sea, unusual rock movements, slowly falling hail are revealed. You'll learn about Robert Cook's inertial propulsion device and its relation to Newton's Law.

The last large section covers the Orffyreas wheel built in Germany centuries ago. The author believes it might have been the only real perpetual motion machine yet invented, the secret of which was lost. You'll learn about the inventor's life, his education, his wheels, his

Perpetual Motion Mystery_

A Serious Inquiry into PM!

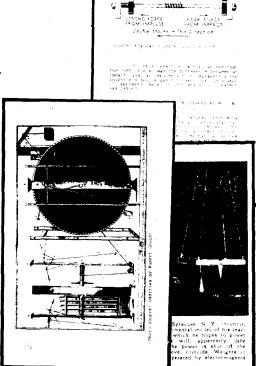
successes and failures, the tests, and more.

Last, the author, based on the material presented in earlier chapters suggests how a perpetual motion machine might be built.

You get a collection of strange, rarely seen stories and phenomena that might hold the key to perpetual motion, if, indeed, such a machine can be built.

This is not a construction manual, nor is it extremely complex. It's a notebook gathered over the years, one that should be interesting to believers and non-believers.

Consider it. You won't find anything quite like it on the market. Different. Unusual. Interesting reading. Get a copy. 5 1/2 x 8 1/2 paperback 196 pages Cat. no. 4538



PERPETUAL MOTION HISTORY

PERPETUAL MOTION
The History of an Obsession
by Arthur Ord-Hume

People for centuries have attempted to build a machine that will produce more energy than it consumes. And they've all failed.

If you think you've invented a new type of perpetual motion machine, you had better read this book. Chances are, it has already been attempted.

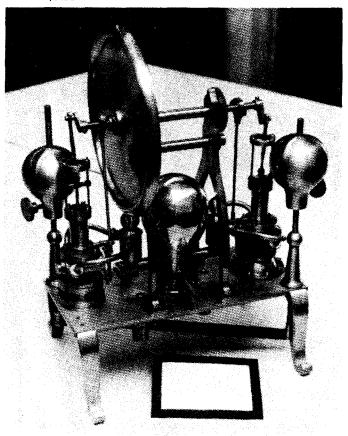
For the rest of us, this book is interesting reading. There are some machines, that don't actually produce energy, but they run seemingly forever on a small amount of energy, like Singer's perpetual chime that was set up in 1840 and is still operating!

Learn about medieval ma-

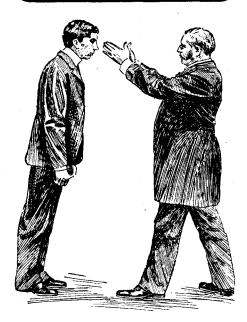
chines, self-moving wheels, lodestones, electromagnetism, steam, capillary attraction, spongewheels, Cox's machine, the Redheffer device, the Keely motor, odd ideas about vaporization and liquification, the barring of perpetual motion devices form the patent office (although the magnet motor sneaked in), rolling ball clocks, and more. You get lots of illustrations, and an excellent list of references for further reading.

Interesting book! Well written and researched. Excellently done. If nothing else, put one in your reference library. It's not all that expensive. 5 1/2 x 8 1/2 paperback 235 pages.

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Learn to Hypnotize! Secrets!



Hypnotism & Hypnotic Suggestion edited by Neal & Clark

Enjoy this "scientific treatise on the uses and possibilities of hypnotism, suggestion, and allied phenomena by thirty authors."

Hypnotism in 1900 was an even hotter topic than it is now. Everyone was apparently trying to hypnotize everyone else. And this is one of the books that taught them how.

Just like it says, you get thirty different chapters covering things like hypnotism by direct suggestion, how to control people in their waking state, suggestion in trance phenomena, how to hypnotize difficult subjects, personal magnetism, history of hypnotism, how to hypnotize and awaken a subject, and much more.

Does it work? If you intend to persuade your mother-in-law to jump off a bridge, probably not. And I haven't had much luck using hypnotism to housebreak my dog. But no doubt the methods written about were actually used successfully by the authors.

I think it's interesting reading. If you want to try it and start a nightclub act, you're on your own.

Some of it is boring, other parts fascinating. (Sounds like most books, doesn't it?)

If unusual books are your thing, consider this carefully. This is one of more offbeat, yet quality, books I've come across in recent months. Maybe you, too, can become Mandrake the Magician! Get a copy. 5 1/2 x 8 1/2 paperback 260 pages

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ORIENTAL EMBALMING FLUID.



Embalm Corpses!

PRESERVING THE DEAD
The Art & Science of Embalming
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Just imagine! You're at a cocktail party among a large group of friends when the converstaion turns to hobbies. Imagine how envious they'll be when you tell them you're an amateur embalmer! Imagine their admiration when you dirft up the bartender and order another formaldehyde on the rocks!

Seriously, this might not have practical application, but you cannot deny that it's unusual! Maybe after reading this you'll change your mind about eventually dying...

What you get are the best parts of two books published in 1900 and 1908 for undertakers-to-be. From one book we kept the fascinating, but all-too-brief history of embalming from the ancient Egyptians to the present. We kept the practical details of actually embalming a body, from removing the blood to special techniques.

In the last section you get a fascinating, and sometimes amusing collection of tips from practicing undertakers who will tell you how to line the carriages up in front of the deceased's home for the funeral, why you should wear clean clothes, and why you shouldn't drink whiskey before the funeral.

`Many pages of human anatomy have been left out.

Yes, there are pictures but they're not all that grotesque. If you're expecting to see mangled corpses, forget it. Not here.

You get details on embalming using various major arteries, how to inject cavities without showing mutilation, needle embalming, and much more. You also get tips on handling cases where death was caused by diptheria, typhus, anthrax, bubonic plague, drowning, electrocution and more.

If you find this revolting, order a copy for your Aunt Aggie whom you've been antagonizing for years. Give her this book the next time you have to have her over for dinner, and shock her out of her mind!

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